

Copyright (c) 1993 - 2003 Compugen Ltd. GenCore version 5.1.6

result	No.	Score	Query	Match	Length	DB	ID	Description
1	2725	100.0	2725	24	AAT70709			
2	1877.2	66.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA1991.DAT:*	1812	24	AAD46711		
3	1895.6	66.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA1991.DAT:*	1812	24	AAD46714		
4	1895.6	66.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA0001A.DAT:*	1812	24	AAD46715		
5	1895.6	66.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA001B.DAT:*	1812	24	AAD46716		
6	1398	51.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA002.DAT:*	5540	18	ART62548		
7	1393.4	51.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA003.DAT:*	3425	18	ART62535		
8	1393.4	51.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA004.DAT:*	3425	18	ART62536		
9	1391.8	51.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA005.DAT:*	3425	18	ART62537		
10	1016.8	37.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA006.DAT:*	3425	18	ART62538		
11	689.4	25.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA007.DAT:*	3425	18	ART62539		
12	318.6	11.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA008.DAT:*	3425	18	ART62540		
13	258.4	9.5	SIDS1/gcgdata/geneseq/geneseq-emb1/NA009.DAT:*	3425	18	ART62541		
14	255.6	9.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA010.DAT:*	3425	18	ART62542		
15	193	7.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA011.DAT:*	3425	18	ART62543		
16	193	7.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA012.DAT:*	3425	18	ART62544		
17	179.6	6.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA013.DAT:*	3425	18	ART62545		
18	179.6	6.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA014.DAT:*	3425	18	ART62546		
19	165	6.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA015.DAT:*	3425	18	ART62547		
20	165	6.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA016.DAT:*	3425	18	ART62548		
21	165	6.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA017.DAT:*	3425	18	ART62549		
22	146.8	5.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA018.DAT:*	3425	22	AAT21338		
23	146.8	5.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA019.DAT:*	3425	22	AAT03697		
24	146.8	5.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA020.DAT:*	3425	22	AC04118		
25	146.8	5.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA021.DAT:*	3425	22	ABY89235		
26	146.8	5.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA022.DAT:*	3425	22	AAD09953		
27	141.8	5.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA023.DAT:*	3425	22	AAT70722		
28	141.8	5.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA024.DAT:*	3425	22	AAT77115		
29	141.8	5.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA025.DAT:*	3425	22	AAT94314		
30	141.8	5.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA026.DAT:*	3425	20	AAT70713		
31	140.6	5.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA027.DAT:*	3425	20	AAT7114		
32	138.4	5.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA028.DAT:*	3425	21	AAT26369		
33	117.6	4.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA029.DAT:*	3425	22	AA159575		
34	113	4.1	SIDS1/gcgdata/geneseq/geneseq-emb1/NA030.DAT:*	3425	23	ABP02836		
35	105.6	3.9	SIDS1/gcgdata/geneseq/geneseq-emb1/NA031.DAT:*	3425	21	AAT7114		
36	104.8	3.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA032.DAT:*	3425	20	AAT7118		
37	90.4	3.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA033.DAT:*	3425	22	AA161359		
38	65.8	2.4	SIDS1/gcgdata/geneseq/geneseq-emb1/NA034.DAT:*	3425	23	ABP09098		
39	63.8	2.3	SIDS1/gcgdata/geneseq/geneseq-emb1/NA035.DAT:*	3425	21	AATC0728		
40	60	2.2	SIDS1/gcgdata/geneseq/geneseq-emb1/NA036.DAT:*	3425	24	ABN42351		
41	50	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA037.DAT:*	3425	24	ABP41174		
42	50	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA038.DAT:*	3425	24	ABP41175		
43	49.8	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA039.DAT:*	3425	22	AAT58302		
44	49.4	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA040.DAT:*	3425	22	AAT27423		
45	49.4	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA041.DAT:*	3425	22	AAT33302		
46	48	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA042.DAT:*	3425	22	AA191934		
47	48	1.8	SIDS1/gcgdata/geneseq/geneseq-emb1/NA043.DAT:*	3425	22	AAP93344		
48	46	1.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA044.DAT:*	3425	22	AA17185		
49	46	1.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA045.DAT:*	3425	22	AAD17186		
50	45.4	1.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA046.DAT:*	3425	23	AA1613021		
51	45.4	1.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA047.DAT:*	3425	25	ABP63251		
52	45	1.7	SIDS1/gcgdata/geneseq/geneseq-emb1/NA048.DAT:*	3425	21	AAC39723		
53	44.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA049.DAT:*	3425	22	AAL02949		
54	44.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA050.DAT:*	3425	22	AAL02951		
55	44.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA051.DAT:*	3425	24	ABP84349		
56	44.4	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA052.DAT:*	3425	15	AA064204		
57	44.4	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA053.DAT:*	3425	25	ABP63251		
58	44.2	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA054.DAT:*	3425	22	AAR26469		
59	44.2	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA055.DAT:*	3425	22	AAB26471		
60	44.2	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA056.DAT:*	3425	24	AAB01848		
61	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA057.DAT:*	3425	21	AA151620		
62	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA058.DAT:*	3425	21	AA151620		
63	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA059.DAT:*	3425	21	AA151621		
64	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA060.DAT:*	3425	21	AA151622		
65	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA061.DAT:*	3425	21	AA151622		
66	43.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA062.DAT:*	3425	22	AA144551		
67	43.2	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA063.DAT:*	3425	22	AA120869		
68	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA064.DAT:*	3425	24	ABP56175		
69	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA065.DAT:*	3425	24	ABP56177		
70	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA066.DAT:*	3425	23	ABP92722		
71	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA067.DAT:*	3425	21	AAAT7245		
72	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA068.DAT:*	3425	21	AAAT71428		
73	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA069.DAT:*	3425	24	ABK91615		
74	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA070.DAT:*	3425	24	ABK91616		
75	43	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA071.DAT:*	3425	24	ABK91617		
76	42.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA072.DAT:*	3425	24	AB233740		
77	42.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA073.DAT:*	3425	21	AAZ36390		
78	42.8	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA074.DAT:*	3425	21	AAZ38243		
79	42.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA075.DAT:*	3425	22	AAF61067		
80	42.6	1.6	SIDS1/gcgdata/geneseq/geneseq-emb1/NA076.DAT:*	3425	25	ABX34499		

No. is the number of results predicted by chance to have a chance score greater than or equal to the score of the result being printed.

הנְּצָרָה

፳፻፲፭

RESULT 1
AA170709
AA170709 standard; cDNA; 2725 BE
AA170709;
05-FEB-2002 (first entry)
Human dopamine beta-hydroxylase
Dopamine beta-hydroxylase; dopam
schizoaffective disorder; bipolar
mood disorder; anxiety; attention
addiction; substance abuse; diag
single nucleotide polymorphism;

Query	Match	Score	DB	Length	0;
Qy	1 TCA GTCC TGT GGG CCA GCT GCG GGG CCA GAC ATG GGG AGG CAG CCT CAT GT TAC GCA	2725;	24;	2725;	0;
Db	1 TCA GTCC TGT GGG CCA GCT GCG GGG CCA GAC ATG GGG AGG CAG CCT CAT GT TAC GCA	60	60	60	0;
Qy	61 CAG CAG GGC CAC TGT CTC GTC	0;	0;	0;	0;
Db	61 CAG CAG GGC CAC TGT CTC GTC	120	120	120	0;

```

Location/Qualifiers
33 . 1844
/*tag= a
/gene= "DBH"
/BC_number= "1.14.17.1"
/product= "dopamine beta-hydroxylase"

```

121	AGAGCCCCCTCCCTATCACATCCCCCTGGACCCGGGGTCCCTGGAGGCTCTCATGGA	180	Db	1201	TCCACATCTTCGCCCTTCAGCTCCACACACCTGCTGGAGAAGGTGTCAGTGTC	1260
121	AGAGCCCCCTCCCTATCACATCCCCCTGGACCCGGGGTCCCTGGAGGCTCTCATGGA	180	Qy	1261	TGGTCCGGACGGCGGAGTGGGAGATCTGGAGATCTGGCTCATCACTAGGCCCTCACT	1320
181	ATGTCAGTCAACCCAGGGCCATCCATTCCAGCTCCGGAGGCTCAAGGGCT	240	Db	1261	TGGTCCGGACGGCGGAGTGGGAGATCTGGAGATCTGGCTCATCACTAGGCCCTCACT	1320
181	ATGTCAGTCAACCCAGGGCCATCCATTCCAGCTCCGGAGGCTCAAGGGCT	240	Qy	1321	TCCAGGAGATCCGATGTTGAGAGGTCCTGCTGGTCCATCCGGAGATCTGGCTCATCA	1380
241	GCGTCCTGTTGGATGTGACCGCTGGAGCTGAGACCGAGATCTGGTGTGCT	300	Db	1321	TCCAGGAGATCCGATGTTGAGAGGTCCTGCTGGTCCATCCGGAGATCTGGCTCATCA	1380
241	GCGTCCTGTTGGATGTGACCGCTGGAGCTGAGACCGAGATCTGGTGTGCT	300	Qy	1381	CCCTCTGAGCTGAGCTGAGACCGAGATCTGGTGTGCTGGAGCTGAGATCTGGATCC	1440
301	GGACCGATGGGACATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	360	Db	1381	CCCTCTGAGCTGAGCTGAGACCGAGATCTGGTGTGCTGGAGCTGAGATCTGGATCC	1440
301	GGACCGATGGGACATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	360	Qy	1441	TGGAGGAGATGTGTCAGTCACTCTGCACTACTCCAGACCCAGTCGGAGCTTGCA	1500
361	ACCTGGATCCCCAGGGACTTACCAAGCTGGCTGGAGGACCCAGAACGGCTG	420	Db	1441	TGGAGGAGATGTGTCAGTCACTACTCCAGACCCAGTCGGAGCTTGCA	1500
361	ACCTGGATCCCCAGGGACTTACCAAGCTGGCTGGAGGACCCAGAACGGCTG	420	Qy	1501	AGAGGCCCTGGAGCCGGCTCTCTGAGAGTACTCCACCTCATCAAGGGTCAACA	1560
421	CCCTGCTTCAAGGGCCCTTGGACCTGGCTGGAGGTTACCTCATGGAGG	480	Db	1501	AGAGGCCCTGGAGCCGGCTCTCTGAGAGTACTCCACCTCATCAAGGGTCAACA	1560
421	CCCTGCTTCAAGGGCCCTTGGACCTGGCTGGAGGTTACCTCATGGAGG	480	Qy	1561	ACGGGGATSTTCGACCTCCCTGAGGCTCCGCTGAGCTTGTGTCAGCTGTCATGC	1620
481	GCACTGTCACTTGTGTCAGGGATCCTGGAGCTGGCTGGAGGCTCATCA	540	Db	1561	ACGGGGATSTTCGACCTCCCTGAGGCTCCGCTGAGCTTGTGTCAGCTGTCATGC	1620
481	GCACTGTCACTTGTGTCAGGGATCCTGGAGCTGGCTGGAGGCTCATCA	540	Qy	1621	GGAACTCTTCAACCGGAGTACTGAAGGCCCTGTCAGCCTGGCCATCTCCATGC	1680
541	ACGGCTCGGCCCTGCAAGTGGGCTGGAGGCTGGAGGCTGGAGGCTGG	600	Db	1621	GGAACTCTTCAACCGGAGTACTGAAGGCCCTGTCAGCCTGGCCATCTCCATGC	1680
541	ACGGCTCGGCCCTGCAAGTGGGCTGGAGGCTGGAGGCTGGAGGCTGG	600	Qy	1681	ACTGCAACAGTCTCAACGGCTGGAGCTGGAGGCTGGAGGCTGGAGGCTGG	1740
601	AACGGAGTTGCCCTAGAGGGCTGGAGGCTGGAGGCTGGAGGCTGG	660	Db	1681	ACTGCAACAGTCTCAACGGCTGGAGCTGGAGGCTGGAGGCTGGAGGCTGG	1740
601	AACGGAGTTGCCCTAGAGGGCTGGAGGCTGGAGGCTGGAGGCTGG	660	Qy	1741	AGGTATCTCACTGGAGGCCACCCACAGTGGCCCAACAGGCGGGAGCTACTCCCT	1800
661	CCGGCCAGGGAGCCCTGGCTGGAGGCTGGAGGCTGGAGGCTGG	720	Db	1741	AGGTATCTCACTGGAGGCCACCCACAGTGGCCCAACAGGCGGGAGCTACTCCCT	1800
661	CCGGCCAGGGAGCCCTGGCTGGAGGCTGGAGGCTGGAGGCTGG	720	Qy	1801	CTGTGTGCCCACTGGTGGCTGGAGCTGGAGGCTGGAGGCTGGAGGCTGG	1860
721	ACCACATTATCAAGTACGGCCATGGTCAACCAAGGGCANTGGGCTTGTG	780	Db	1801	CTGTGTGCCCACTGGTGGCTGGAGCTGGAGGCTGGAGGCTGGAGGCTGG	1860
721	ACCACATTATCAAGTACGGCCATGGTCAACCAAGGGCANTGGGCTTGTG	780	Qy	1861	CCCCCTCTCCATGCTGGCTGGAGCTGGAGGCTGGAGGCTGGAGGCTGG	1920
781	TGGAGTCTTCAAGTGGCTGGAGGCTGGAGGCTGGAGGCTGGAGGCTGG	840	Db	1861	CCCCCTCTCCATGCTGGAGGCTGGAGGCTGGAGGCTGGAGGCTGG	1920
781	TGGAGTCTTCAAGTGGCTGGAGGCTGGAGGCTGGAGGCTGGAGGCTGG	840	Qy	1921	GATCCCAGTGGAGGCCATGGCTGGAGGCTGGAGGCTGGAGGCTGG	1980
841	ACTCCAAGATGAAACCCGACCGCTCAACTCTGGCGCACGCTGGCTGG	900	Db	1921	GATCCCAGTGGAGGCCATGGCTGGAGGCTGGAGGCTGGAGGCTGG	1980
841	ACTCCAAGATGAAACCCGACCGCTCAACTCTGGCGCACGCTGGCTGG	900	Qy	1981	AGACCACTGGCTCCATGCTGGCTGGAGGCTGGAGGCTGGAGGCTGG	2040
901	TGGTGTGCCAAGGGATTTCATCCAGGGCTGGCTGGCTGGCTGGCTGG	960	Db	1981	AGACCACTGGCTCCATGCTGGCTGGAGGCTGGAGGCTGGAGGCTGG	2040
901	TGGTGTGCCAAGGGATTTCATCCAGGGCTGGCTGGCTGGCTGGCTGG	960	Qy	2101	TGACTCTGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2160
1021	ACCACTCCCTGGCATCCGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1020	Db	2101	TGACTCTGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2160
1021	ACCACTCCCTGGCATCCGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1020	Qy	2041	GGTGCCTGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2220
1081	TCTGGAGCTGGGACTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1140	Db	2161	TGGCCCTACTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2280
1081	TCTGGAGCTGGGACTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1140	Qy	2221	AATCCCGGAAGGCCCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2340
1141	TGATCTCTGCTGGACTCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1200	Db	2221	AATCCCGGAAGGCCCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2280
1141	TGATCTCTGCTGGACTCTGGCTGGCTGGCTGGCTGGCTGGCTGG	1200	Qy	2281	CCCGCTTAAACATTTCCCTGGCTGGCTGGCTGGCTGGCTGGCTGG	2340

Db	2281	CCGGCTTAACATTCCCTGCTGAGTGGCTCGTGTTCACAGTGGCGGTTCCTGGAC	2340
Qy	2341	GGAGGGAGGACCTAGGCAATTAGCTAATTTAGAAGCTCGCTGGAAATTGCTCCATCTG	2400
Db	2341	GGAGGGAGGACCTAGGCAATTAGCTAATTTAGAAGCTCGCTGGAAATTGCTCCATCTG	2400
Qy	2401	AGTAAACAGATAATTTCGCCAACCTTAAGGGAAAGCCCTGACAAACTATCACCAGAA	2460
Db	2401	AGTAAACAGATAATTTCGCCAACCTTAAGGGAAAGCCCTGACAAACTATCACCAGAA	2460
Qy	2461	CGAGGGGCAAAGATCAGCGGGGTTCTGGCGGCCGTTTCACTGGGNGGAATTATT	2520
Db	2461	CGAGGGGCAAAGATCAGCGGGGTTCTGGCGGCCGTTTCACTGGGNGGAATTATT	2520
Qy	2521	AGCACACGGTGTCTCGCGGTGGCCAGGGCTGAAAGACCGGGTGGACTCAGG	2580
Db	2521	AGCACACGGTGTCTCGCGGTGGCCAGGGCTGAAAGACCGGGTGGACTCAGG	2580
Qy	2581	GCTGGCTTCCGGCTGGTCTGCACATTAGGGATGTGCTCTGGGGCCATTTCACA	2640
Db	2581	GCTGGCTTCCGGCTGGTCTGCACATTAGGGATGTGCTCTGGGGCCATTTCACA	2640
Qy	2641	TTCTCTGACCTCACTTTCTCATCTGTAACACAGGCTATGCTGGGGTAATGAGC	2700
Db	2641	TTCTCTGACCTCACTTTCTCATCTGTAACACAGGCTATGCTGGGGTAATGAGC	2700
Qy	2701	CAATAAGTCACATTGCGTGGC	2725
Db	2701	CAATAAGTCACATTGCGTGGC	2725

RESULT 2
AAD46711
D AAD46711 standard; CDNA; 1812 BP.

Human DBH cDNA.
27-JAN-2003 (first entry)
AAD46711;

Location/Qualifiers
1..1812
/*tag= a
/product= "Human DAB protein"

Qy	453	GACCCCAAGGATTACCTCATGAAAGCGCACTTGTCACTTGTCTACGGCATCTGGAG	512
Db	421	GACCCCAAGGATTACCTCATGAAAGCGCACTTGTCACTTGTCTACGGCATCTGGAG	480
Qy	513	GAGCCGTTCGGTCACTGGAGGCCATCAACGGCTCGGCTCGAATGGGCTGAACTGGG	572
Db	481	GAGCCGTTCGGTCACTGGAGGCCATCAACGGCTCGGCTCGAATGGGCTGAACTGGG	540
Qy	573	GTGCAGTCTCTGAAGGCCAATATGCCGAAACGGGATTCGCCCTGAGCGGTGACCATG	632
Db	541	GTGCAGTCTCTGAAGGCCAATATGCCGAAACGGGATTCGCCCTGAGCGGTGACCATG	600
Qy	633	GAGGTCAAGGTCCGAATATCCGATTCGCACTCCAGGCCAGGACCAAGTACTGGTACATT	692
Db	601	GAGGTCAAGGTCCGAATATCCGATTCGCACTCCAGGCCAGGACCAAGTACTGGTACATT	660
Qy	693	AAGGGCTTCAAAGGGCTTCTCGGCAACCATTAAGTACGAGGCCATGTCAACCC	752
Db	661	AAGGGCTTCAAAGGGCTTCTCGGCAACCATTAAGTACGAGGCCATGTCAACCC	720

SOMMERTAGSGESELLSCHAFT / 20

Qy	753	AGGGCAATGAGGCCCTGGCACACATGGAGTCAGTCAGGCCGCCAGATGAC	812	Db	1801	GCACAAAGGCTGA	1812
Db	721	AAGGGCAATGAGGCCCTGGCACACATGGAGTCAGTCAGGCCGCCAGATGAC	780				
Qy	813	AGCCTCCCCCACTCAAGGGCCCTGGACTCTGGAGTAAACCGAACCTAAC	872	RESULT	3		
Db	781	AGCCTCCCCCACTCAAGGGCCCTGGACTCTGGAGTAAACCGAACCTAAC	840	ARD46714	ARD46714	standard; cDNA;	1812 BP.
Qy	873	TGCCGCACGTGCTGGCCACTGGCCCTGGGCAAGGATTACTACCCAGAGAA	932	ID	ARD46714		
Db	841	TGCCGCACGTGCTGGCCCTGGGCAAGGATTACTACCCAGAGAA	900	XX			
Qy	933	GCCGCCTGCTGGCTGGGGTCTCCAGATPATCTGGCTGAGAAGTTCACTAC	992	XX			
Db	901	GCCGCCTGCTGGCTGGGGTCTCCAGATPATCTGGCTGAGAAGTTCACTAC	960	XX			
Qy	993	CAACACCACTGGTGTAGAAAGGACGAAACGACTCCCTGTACTACACA	1052	KW			
Db	961	CAACACCACTGGTGTAGAAAGGACGAAACGACTCCCTGTACTACACA	1020	KW			
Qy	1053	GCCAGCTGGGCGCTTCAACGGGGATCATGGAGCTGGGTACAGCCGTG	1112	KW			
Db	1021	GCCAGCTGGGCGCTTCAACGGGGATCATGGAGCTGGGTACAGCCGTG	1080	KW			
Qy	1113	ATGCCATTCACACGGGAGACGGCTCATCTCACTGGTACTACGGACAA	1172	XX			
Db	1081	ATGCCATTCACACGGGAGACGGCTCATCTCACTGGTACTACGGACAA	1140	Key			
Qy	1173	ACCCAGCTGGCACTGCTCCCTGGATCCACATCTTCAGCTCCACAC	1232	CDS			
Db	1141	ACCCAGCTGGCACTGCTCCCTGGATCCACATCTTCAGCTCCACAC	1200	1..181..2			
Qy	1233	CTGACTGGAGAAGGGTGTCAAGTGTGTGGAGATGTG	1292	/*tag=			
Db	1201	CTGACTGGAGAAGGGTGTCAAGTGTGTGGAGATGTG	1260	a			
Qy	1293	AACCGAGAACTACTACAGCCCTCACTTCCAGAGATCGTGAAGAGGTGTG	1352	/product=			
Db	1261	AACCGAGAACTACTACAGCCCTCACTTCCAGAGATCGTGAAGAGGTGTG	1320	"Human DBH variant protein (V87M)"			
Qy	1353	TCCCTCATCCGGAGATGTTGCTCATCACCTCTGGTCAACAGGGAGAACCGGAG	1412	mutation			
Db	1321	TCCCTCATCCGGAGATGTTGCTCATCACCTCTGGTCAACAGGGAGAACCGGAG	1380	replace (259, G)			
Qy	1413	CTGCCCAAGTGGGGTTCGGATCTGGAGAGATGTGTCACTACGTGACTAC	1472	/*tag=			
Db	1381	CTGCCCAAGTGGGGTTCGGATCTGGAGAGATGTGTCACTACGTGACTAC	1440	b			
Qy	1473	TACCCCAAGCAGCAGCTGGAGCTCTGGAGAGCTGGCTCTGGAGAAG	1532	XX			
Db	1441	TACCCCAAGCAGCAGCTGGAGCTGGAGCTCTGGAGAAG	1500	PS			
Qy	1533	TACTCCACCTCATCAAGGGTCAACAGGGATCTGGACCTCCCTAGGGCTC	1592	XX			
Db	1501	TACTCCACCTCATCAAGGGTCAACAGGGATCTGGACCTCCCTAGGGCTC	1560	CC			
Qy	1593	GTGTCTCAGCACTTCACCTCTGGTCCCTGGAAACTCCCTCAAGGCTC	1652	CC			
Db	1561	GTGTCTCAGCACTTCACCTCTGGTCCCTGGAAACTCCCTCAAGGCTC	1620	CC			
Qy	1653	CTGTACAGCTTCGGCCATCTCCATGACTGAAAGTCTCTGGCTTCAG	1712	CC			
Db	1621	CTGTACAGCTTCGGCCATCTCCATGACTGAAAGTCTCTGGCTTCAG	1680	CC			
Qy	1713	GCTGAATGAACTTGCAACCTGGCCCTGGCCAGGGTCACTCCAC	1772	CC			
Db	1681	GCTGAATGAACTTGCAACCTGGCCCTGGCCAGGGTCACTCCAC	1740	CC			
Qy	1773	CAGTGCCTCACAGGCAAGGCCAACGGCTCTGGTCACTGGGG	1832	CC			
Db	1741	CAGTGCCTCACAGGCAAGGCCAACGGCTCTGGTCACTGGGG	1800	CC			
Qy	1813	GGCAAAAGGCTGA	1844	XX			
Qy		Sequence 1813 BP: 374 A; 600 C; 504 G; 334 T; 0 other;		SQ			

Db	DR	P-PSDB; AAB29141.
Qy	XX	Identifying dopamine beta-hydroxylase inhibitor for treating congestive heart failure, by contacting candidate compound with dopamine beta-hydroxylase polypeptide region and detecting binding of compound to the region -
Db	XX	Disslosure: Page -; 76pp; English.
Qy	XX	The present invention relates to a method of determining if a compound is a potentially useful dopamine beta-hydroxylase (DBH) inhibitor. The method involves contacting with a DBH polypeptide region and detecting binding of a compound to the polypeptide or detecting DBH biological activity where binding indicates that compound is a DBH inhibitor. The method is useful for determining whether a compound is a potentially useful DBH inhibitor where the DBH inhibitor increases the DBH activity of a patient with congestive heart failure or chronic activation of sympathetic nerve function or the inhibitor increases dopamine levels that benefits renal function in a patient with congestive heart failure. It is useful for determining whether a patient has an increased risk of miscarriage, still birth, foetal or neonatal death, dementia, bipolar disorder, noradrenergic disease, depression, schizophrenia or attention deficit/hyperactivity disorder. The method is useful for the development of drugs that specifically inhibit DBH biological activity. The present sequence is human DBH variant cDNA.
Db	XX	Note: This sequence is not shown in the specification but is derived from wild-type DBH cDNA shown as SEQ ID NO: 36 in pages 62-63 of the specification (AAD46711).
Qy	XX	Sequence 1812 BP; 374 A; 600 C; 504 G; 334 T; 0 other;
Db	XX	Query Match 66.3%; Score 1805.6; DB 24; Length 1812; Best Local Similarity 99.8%; Pred. No. 0; Matches 1808; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
Qy	33	ATGGCGGAGGGCNGCCCTGCTAGAGACAGAGTGCGGCACTTCTCGGTATCCGGTG 92
Db	1	ATGGCGGAGGGCAGCCCTCATGAGACAGAGTGCGGCACTTCTCGGTATCCGGTG 60
Qy	93	GCGCGCATGCGAGGGCTGGGTCCCGTGGAGGCCCTCCCTATACATACATCCCTGGAC 152
Db	61	GCGCGCATGCGAGGGCTGGGTCCCGTGGAGGCCCTCCCTATACATACATCCCTGGAC 120
Qy	153	CGGAGGGTCTGGAGCTGAGGTGGCTCCMCTGGATCTCCATTTC 212
Db	121	CGGAGGGTCTGGAGCTGAGGTGGCTCCMCTGGATCTCCATTTC 180
Qy	213	CAGCTCTCTGGTCCGGGGCTGAGGTGGCTCCMCTGGATCTCCATTTC 272
Db	181	CAGCTCTGGTCCGGGGCTGAGGTGGCTCCMCTGGATCTCCATTTC 240
Qy	273	CTTGAGAAACGGAGATTCGTTGCTGAGCCATGGGAAACTCGCTATTTCGGGAC 332
Db	241	CTTGAGAAACGGAGATTCGTTGCTGAGCCATGGGAAACTCGCTATTTCGGGAC 300
Qy	333	GCCTGGAGTGGCCAGAGGAGCCATCACTGGAGGCTTCACTGGGACCTCTGC 392
Db	301	GCCTGGAGTGGCCAGAGGAGCCATCACTGGGACCTCTGC 360
Qy	393	CAGGTGCAAGGAGTAACTCTGAGGGCACTCGGATCTGGGAG 512
Db	421	GACCCCAAGGAGTAACTCTGAGGGCACTCGGATCTGGGAG 480
Qy	513	GAGGCCCTCCGGTCACTGGAGGCCATCAAGGGCTGGAGATGGGGTSCAGAGG 572
Db	481	GAGCCGTTGGTCACTGGAGGCCATCAAGGGCTGGAGATGGGGTSCAGAGG 540
Qy	573	GTGCAAGCTCTGGTCAAGGCCAATATCCGGAAACGGAGTGGCTGACCATG 632
RESULT 5		
		Human DBH variant cDNA (991A).
		Human; dopamine beta-hydroxylase; DBH; chronic activation; miscarriage; congestive heart failure; still birth; foetal death; neonatal death; dementia; bipolar disorder; noradrenergic disease; attention deficit; depression; schizophrenia; hyperactivity disorder; cardiant; variant; mutant; ss.
		27-JAN-2003 (first entry)
		Human DBH variant cDNA (991A).
		Human; dopamine beta-hydroxylase; DBH; chronic activation; miscarriage; congestive heart failure; still birth; foetal death; neonatal death; dementia; bipolar disorder; noradrenergic disease; attention deficit; depression; schizophrenia; hyperactivity disorder; cardiant; variant; mutant; ss.
		Homo sapiens.
		Key
		CDS
		Location/Qualifiers
		1..1812
		/*tag= a
		/product= "Human DBH variant protein (D100E)"
		mutation
		replace (991, G)
		/tag= b
		WO200272006-A2.
		19-SEP-2002.
		07-MAR-2002; 2002WO-US06893.
		07-MAR-2001; 2001US-274095P.
		(MCLE -) MCLEAN HOSPITAL CORP.
		Kim K, Kim C, Robertson D;
		WPI; 2002-723279/78.

Db	541	GTCAGCTCTCGAAGGCCAAATATCCCGAACCGGAGTGCCTCAGACGGTGCACCATG	600	Qy	1713	GTTGAATGGAACCTCTGGCCCTGCAAGGTCACTTCCACACTGGAAAGGCCACCCA	1772	
	633	GAGGTCCAAGCTCCAAATATCCGATCCAGGACCGAGAACCGTACTGGCTGCTATT	692	Qy	1681	GTTGAATGGAACCTCTGGCCCTGCAAGGTCACTTCCACACTGGAAAGGCCACCCA	1740	
	601	GAGGTCCAAGCTCCAAATATCCGATCCAGGACCGAGAACCGTACTGGCTGCTATT	660	Db	1773	CAGTGCCTACCAAGGGCGAGGCCACGGCTGCTGGCCACAGGTCTGCTAC	1832	
	693	AGGAGCTTCAAAAGGCCCTTCCTCGECACACATTATCAAGTACAGGCTCATGTCACC	752	Qy	1741	CAGTGCCTACCAAGGGCGAGGCCACGGCTGCTGGCCACAGGTCTGCTAC	1800	
	661	AGGAGCTTCAAAAGGCCCTTCCTCGECACACATTATCAAGTACAGGCTCATGTCACC	720	Db	1833	GGCAAAAGGTGTA	1844	
	753	AGGGCAATGAGGCCCTTGTGACCAACATGAGAATGTCAGTGCGCCCGAGATGGAC	812	Qy	Db	1801	GGCAAAAGGTGTA	1812
	721	AGGGAAATGGGCCCTGTGACCAACATGAGAATGTCAGTGCGCCCGAGATGGAC	780					
	813	AGCGTCCCCACTTCAGGGCCCTGGACATCCAGATAAGTAAACCGAACGGCTCAACTAC	872					
	781	AGCGTCCCCACTTCAGGGCCCTGGACATCCAGATAAGTAAACCGAACGGCTCAACTAC	840	Db	RESULT 6			
	873	TGCCGCACTGCTGCGCTGGGCTGGGATTTACTACCGAGGAA	932	Qy	AAT62548			
	841	TGCCGCACTGCTGCGCTGGGCTGGGATTTACTACCGAGGAA	900	Db	AAAT62548 standard	DNA	5540 BP.	
	933	GCGGCGCTTCTGGCTTCAGGCTCTGGGCTGGGATTTACTACCGAGGAA	992	Qy	XX	XX		
	901	GCGGCGCTTCTGGCTTCAGGCTCTGGGCTGGGATTTACTACCGAGGAA	960	Db	07-JUN-1997	(first entry)		
	993	CACAAACCCACTGGTATAGGGACAAACCACTCTCAGGATTCGGCTGTACTACAC	1052	Qy	XX	XX		
	961	CACAAACCCACTGGTATAGGGACAAACCACTCTCAGGATTCGGCTGTACTACAC	1020	Db	IGSP-hPMCde1ACTH-IRES-rTHDe1-IRES-bDBH-IRES-Zeocin-073	DNA.		
	1053	GTGAAGCTGGCGCTGGGATCTGGAGCTGGGACTCTGGTACAGGCCAGTG	1112	Qy	XX	XX		
	1021	GTCAAGCTGGCGCTTCAGGCGGATCTGGGACTCTGGTACAGGCCAGTG	1080	Db	XX	XX		
	1113	ATGGCCATTCCACCAACGGGAGAACCGGCTTCATCCCACTGCAACGAGTGC	1172	Qy	Key	Location/Qualifiers		
	1081	ATGGCCATTCCACCAACGGGAGAACCGGCTTCATCCCACTGCAACGAGTGC	1140	Db	FT	5' UTR		
	1173	ACCCAGCTGGCACTGCTCCCTCGGGATCACACATCTGGCTCACACAC	1232	Qy	FT	/*tag= a		
	1141	ACCCAGCTGGCACTGCTCCCTCGGGATCACACATCTGGCTCACACAC	1200	Db	FT	FT		
	1233	CTGAGTGGGAAAGGGTGTACAGTGGGATCTGGGAGATGGAGATCTGGT	1292	Qy	FT	FT		
	1201	CTGACTGGGAAAGGGTGTACAGTGGGATCTGGGAGATGGAGATCTGGT	1260	Db	FT	/*tag= b		
	1293	AACCGAGCAATCACTACAGGCTCTGACTGGAGATCTGGCATCTGGTACAG	1352	Qy	FT	codon_start= 119		
	1261	AACCGAGCAATCACTACAGGCTCTGACTGGAGATCTGGCATCTGGTACAG	1320	Db	FT	FT		
	1353	TGGGTCATCGGGAGATCTGGCTCATCACCTCTGGCTCACAGGAAACGGGAG	1412	Qy	FT	FT		
	1321	TGGGTCATCGGGAGATCTGGCTCACAGGAAACGGGAGATCTGGTACAG	1380	Db	FT	FT		
	1413	TACCCCGAGGCACTGGGAGCTGGATCTGGTCAACTAGTGTGCACTAC	1472	Qy	FT	FT		
	1381	TACCCCGAGGCACTGGGAGCTGGTCAACTAGTGTGCACTAGTGTGCACTAC	1440	Db	FT	FT		
	1473	TACCCCGAGGCACTGGGAGCTGGAGCTGGCTGCAAGGGCTGCTGCAAGAAG	1532	Qy	FT	FT		
	1441	TACCCCGAGGCACTGGGAGCTGGCTGCAAGGGCTGCTGCAAGAAG	1500	Db	XX	XX		
	1533	TACITCCACCTCATCACAGGTTCAAAAGGGATGTCTCACCTGGCTCAGGGTCC	1592	Qy	XX	XX		
	1501	TACITCCACCTCATCACAGGTTCAAAAGGGATGTCTCACCTGGCTCAGGGTCC	1560	Db	07-JUN-1996	96WO-US09629.		
	1593	GTGTCTAGGAGTGTACCTCTGGACTCTTCACACGGCTACGTACTGAGGCC	1652	Qy	XX	XX		
	1561	GTGTCTAGGAGTGTACCTCTGGACTCTTCACACGGCTACGTACTGAGGCC	1620	Db	07-JUN-1995	96US-0481917.		
	1653	CTGTACAGCTGGCCCATCTCCATGCACTGGCTCAGGCTCTGGCTCCAG	1712	Qy	XX	XX		
	1621	CTGTACAGCTGGCCCATCTCCATGCACTGGCTCAGGCTCTGGCTCCAG	1680	Db	PA (CYTO-) CYTOTHERAPEUTICS INC.			
					PI	Saydoff, J,	Wong, S;	
					XX			
					WPI	1997-087062/08.		
					XX			

Qy	1850	GCCTACTCCTCCCCCTCTCC	1871	Score 1393.4; DB 18; Length 3425;
Db	4566	GCAGGGCCCCCTCTCCCC	4587	Best Local Similarity 85.8%; Pred. No. 3.7e-293; Mismatches 0; Indels 0; Gaps 0;
RESULT 7				Matches 1547; Conservative 0; Mismatches 256; Indels 0; Gaps 0;
AAT6535				
ID	AAT62535	standard; DNA; 3425 BP.		
XX	AC	AAT62535;		
XX	DT	06-JUN-1997 (first entry)		
XX	DE	rTHdel-IRES-bDBH DNA sequence.		
XX	KW	Analgesic; pain; bioartificial organ; tyrosine hydroxylase;		
XX	KW	dopamine beta-hydroxylase; internal ribosome entry site; IRES;		
XX	KW	norepinephrine; catecholamine; rTHdel-IRES-bDBH; ss.		
OS	Chimeric Rattus sp.;			
OS	Chimeric Picornavirus;			
OS	Chimeric Bos taurus.			
XX	Key	Location/Qualifiers		
PH	5'UTR	1..5		
PT		/*tag= a		
PT	exon	1..1017		
PT		/*tag= b		
PT	intron	1018..1617		
PT		/*tag= c		
PT	exon	1618..3425		
PT		/*tag= d		
PT	3'UTR	3412..3425		
PT		/*tag= e		
PT	misc_feature	1025..1617		
PT		/*tag= f		
PT	/product= IRES			
XX	PN	W09640959-A1.		
XX	PD	19-DEC-1996.		
XX	PP	07-JUN-1996;	96WO-US09629.	
XX	PR	07-JUN-1995;	95US-0481917.	
XX	(CYTO-)	CYTOTHERAPEUTICS INC.		
PI	Saydoff, J.	Wong, S;		
XX	DR	WPI; 1997-087062/08.		
XX	PT	Stably transformed cells expressing endorphin, enkephalin and		
PT		catecholamine - and artificial organs contg. them, useful for		
PT		control of pain, esp. implanted in the CNS		
XX	PS	Example; Page 69-71; 11:PP; English.		
CC	2	DNA constructs (AAT62535 and AAT62536) respectively comprise a		
CC		truncated rat tyrosine hydroxylase sequence, rTHdel (see also		
CC		AAT62529) or rTHdelIKS (see also AAT62530), joined via an IRES sequence		
CC		to the bovine dopamine beta-hydroxylase gene. Expression of the		
CC		host cells' catecholamine synthesising enzymes, allowing prodn.		
CC		of norepinephrine. Sequential transformation of host cells with		
CC		diff. vectors or with a polycistronic vector (see also AAT62533,		
CC		AAT62548), allows prodn. of cell lines that produce more than one		
CC		analgesic cpd. Such cell lines can be encapsulated to form		
CC		bioartificial organs that can be implanted e.g. in the CNS for the		
CC		control of pain.		
XX	Sequence	3425 BP;	687 A;	1093 C; 962 G; 683 T; 0 other;
Db	2577	AACAGCCGGCGCACTCCGCGCGCACTCGCGCTGCGCTGCGCTT	2636	

Db	1864	GTGGTCTCTGGACTGACGGACGGCTACTTGGATGCCCTGAGTGGAAAGACAGGAAACACGGACATACAACTTGCACATCAACACGGAAAGACAGGAAACCCGGCCACGGAA	1923	Db	2944	CGTGGCTCATCACCTCTTGCACATACAAACACGGAAAGACAGGAAACCCGGCCACGGAA	3003
Qy	350	GGGGAGATCCACCTGGATCCCCAGGAATGCACTGGCAGGGAGGACCC 409		Qy	1430	CTTCGGATCTGGAGATGGAGATGGTGTCAACTACCGTCACTACTACCCCGAGACGGAGCT 1489	
Db	1924	GGGGAGGTCCACCTGGACTCCAGAATGCACTGGCAGGACTCC 1983		Db	3004	CTTCGGATCTGGAGATGGAGATGGTGTCAACTACCGTCACTACTACCCCGAGACGGAGCT 3063	
Qy	410	AGAAGGCTTGACCCCTGCTTTCAAGAGGCCCTTGGACCCMGCACCCAGGATTACCT 469		Qy	1490	GGAGCTCTGCAAGAACGGCTGGAGCTGGAGCTGGGTTCTGCAGAAGTACTTCACCTCATCAA 1549	
Db	1984	AGAAGGCTTGACCCCTGCTTTCAAGAGGCCCTTGGACCCMGCACCCAGGATTACCT 2043		Db	3064	GGAGCTCTGCAAGAACGGCTGGAGCTGGAGCTGGGTTCTGCAGAAGTACTTCACCTCATCAA 3123	
Qy	470	CATTGAGAAGGGCACTGTCACTTGGTCTACGGATCTGGAGGACCGTGGTCACT 529		Qy	1550	CAGGTTCAACACAGGGATCTGACCTGGCTTGGAGCTGGGTTCTAGCAGTTCACCTGAC 1609	
Db	2044	CATCGAGGACGGSCACCTCCACCTGGTGTAGGATTCCTGGAGGGCCGGTGCCT 2103		Db	3124	CAGGTTCAACACAGGGAAAGTCGGCTCCAGGCTCTGTCAGCTGGTGCAGTTGAC 3183	
Qy	530	GGAGGCTTGACCCCTGCTTTCAAGAGGCCCTTGGACCCMGCACCCAGGATTACCT 589		Qy	1610	CTCTGTTCCCTGGAACTCCPTCAACAGGAACTGGCTTGGAGCTGGGTTCTGCAGCTTGGCC 1669	
Db	2104	GGAGTCTCATCACATCGGTTGACACGGGCTGGCTCAAGGGGTCAGGGGCC 2163		Db	3184	CTCCCTGGCCCTGGAACTCTTCACAGGGCTGGGTTCTGACGGCTTGGTCAAGGGCTTGCACC 3243	
Qy	590	CAAATATCCGGAACCGGAAGTGGCCCTCAAGGGCTGCAACCATGGGGTCAAGGCTCCAA 649		Qy	1670	CATCCCATGCACTGCAACAGTCTCAGGCTGGCTTCAAGGCTGGTAAATGAAACCTGCA 1729	
Db	2164	CGGGATCCCAAGGGGACGGGCTGGGCTGGAGATGGGGATCCGGCCACCTGGGGCG 2223		Db	3244	CATCCCATGCACTGCAACAGGCTGGGCTGGGCTTCAAGGGCTGGGAAATGGGAACTGGCA 3303	
Qy	650	TATCCGATCCCCAGGCAACCGGACACGGTCACTGGTCTACATTAAGGCTTCCAAAGGG 709		Qy	1730	GCCCCCTGGCCCAAGGCTCATCTCCACACTGGAGGGCCACCCACGTGGCCACAGGCCA 1789	
Db	2224	CGTCCCTCATTCGGGCAACGACGGCTGGGCAAGGAGCTACTGGTCTACGTGGTCACTGGGGACGG 2283		Db	3304	GCCCCCTGGCCCAAGGCTCATCTCCACACTGGAGGGCCACCCACGTGGCCACAGGCCA 3363	
Qy	710	CTTCCTCGGACACATGGGACTTCAAGTACAGGCTGGCCCATGGGCTTCAAGGGCTT 769		Qy	1790	GGGGCAAGGCCCTGGTGGCCCCACGGGGCAAGGCTGGGGAAAGGCTGGGG 1849	
Db	2284	CTTCCTGGGACACATCGTGTAGTACAGGCTGGGCTTCAAGGGCTGGGG 2343		Db	3364	GGCTAGAGGCCGGCCGGGGCCACCGTGGCTGAACATCAGTGGGGCAAAAGGCTGACGTG 3423	
Qy	770	TGTCACACACATGGGACTTCAAGTACAGGCTGGCCCATGGGATGGACAGGTTCCAG 829		Qy	1850	GAC 1852	
Db	2344	GGTGCACACATGGGACTTCAAGTACAGGCTGGCCCATGGGATGGACAGGCTGGG 2403		Db	3424	GAC 3426	
Qy	830	CGGCCCTGGGACTTCAAGTACAGGCTGGCCCATGGGATGGACAGGCTGGG 889					
Db	2404	CGGGCCCTGGGACTCTGGGCTCAACTTCTGGCTTCAAGTACAGGCTGGC 2463					
Qy	890	CGCTGGCCCTGGGACTCAAGGCTTACTACCGAGGAAAGGGGGCTTGGG 949					
Db	2464	CGCTGGCCCTGGGCTCAAGGCTTACTACCGAGGAAAGGGGGCTTGGG 2523					
Qy	950	GGGTCAGGCTCTCAAGATACTCGGCCTGGAAAGTCACTACCAACCCACTGGTAT 1009					
Db	2524	GGGGCCGGCTGGGACTCAAGGCTTACTACCGAGGAAAGGGGGCTTGGG 2583					
Qy	1010	AGAAGGACAAACGACTCTGGCTGGGACTTACAGGCAAGTGTGGGGCTT 1069					
Db	2584	AACAGGGGGGGGACTCTGGGCTCACTACGGGCTTCAAGTACAGGCTGGG 2643					
Qy	1070	CAACGCGGGGATCTGGGACTTACAGGCTGGGACTCAAGTACAGGCTGGG 1129					
Db	2644	CGAGCGGGCATCTGGGCTTCAAGTACAGGCTGGGACTCAAGTACAGGCTGGG 2703					
Qy	1130	GGAGACCGCCCTCATCTTCACTGGCTACTGGCAACAGGCTGGCACTGGC 1189					
Db	2704	GGAGACCGCCCTCATCTTCACTGGCTACTGGCAACAGGCTGGCACTGGC 2763					
Qy	1190	TCCCTCGGGATCTGGCTTCACTGGCAACAGGCTGGCACTGGC 1249					
Db	2764	CGCCCTGAGGATTCACTTCTGGCTTCAAGTACAGGCTGGGACTCAAGTACAGGCTGGG 2823					
Qy	1250	GGTCACAGGCTGGGACTTACAGGCTGGGACTCAAGTACAGGCTGGGACTGGC 1309					
Db	2824	GGTCACAGGCTGGGACTTACAGGCTGGGACTCAAGTACAGGCTGGGACTGGC 2883					
Qy	1310	CAGGCCCTCACTTCAGGAGATCCGCTTCACTGGCAACAGGCTGGGACTGGC 1369					
Db	2884	CAGGCCACACTTCAGGAGATCCGCTTCACTGGCAACAGGCTGGGACTGGC 2943					
Qy	1370	TGTGCTCATCACCTCTGGAGTACACAGGAGGCTGGCAACAGGCTGGGG 1429					

RESULT 9
AAT62543 standard; DNA; 4499 BP.
ID AAT62543 standard; DNA; 4499 BP.
XX AAT62543;
AC
XX
DT 07-10-1997 (first entry)
XX
DE IgSP-hPONCde1ACTH-IRES-rTHdEl-IRES-bDBH-068 DNA sequence.
XX
KW Analgesic; pain; bioactive peptide; pro-opiomelanocortin; POMC; endorphin; tyrosine hydroxylase; dopamine beta-hydroxylase; internal ribosome entry site; 88
XX
KW Internal ribosome entry site; 88
OS Chimeric Homo sapiens;
OS Chimeric Rattus sp.;
OS Chimeric Bos taurus;
OS Chimeric picornavirus.

Key Location/Qualifiers
5' UTR 1..43
PT /*tag= a
exon 1..89
inttron /*tag= b
PT /codon_start= 44
PT inttron 90..168
PT /*tag= c
exon 169..402
PT /*tag= d
483..1080
PT /tag= e
PT /codon_start= 1081..2091
PT /tag= f
inttron 2092..2691
PT /*tag= g
exon 2692..4499
PT /*tag= h

Db	28573	ACTTAGGGAGTGTGCCATTGGCGGGCATTTCATTCCTGACCCCTCATTTCTCATCT	28632	PR	08-SEP-2000;	2000US-0231243.
Qy	2666	GTAAACAGCCGCTGATGCCCTGGCGGGCTATGACCTAAACCTCAACTGGCTGC	2725	PR	08-SEP-2000;	2000US-0231244.
Db	28633	GTAAACAGGCTGATGCCCTGGCGGGCTATGACCTAAAGCTCAACTGGCTGC	28692	PR	08-SEP-2000;	2000US-0231413.
				PR	08-SEP-2000;	2000US-0231414.
				PR	08-SEP-2000;	2000US-0232080.
				PR	08-SEP-2000;	2000US-0232081.
				PR	12-SEP-2000;	2000US-0231968.
				PR	14-SEP-2000;	2000US-0232397.
ID	AAK75860	standard; DNA; 821 BP.		PR	14-SEP-2000;	2000US-0232398.
XX	AAK75860;			PR	14-SEP-2000;	2000US-0232399.
AC				PR	14-SEP-2000;	2000US-0232400.
DT	07-NOV-2001	(first entry)		PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232400.
DB	Human immune/haematopoietic antigen genomic sequence SEQ ID NO:36672.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
KW	Human; immune; haematopoietic; immune/haemopoietic antigen; cancer;			PR	14-SEP-2000;	2000US-0232401.
KW	cytostatic; gene therapy; vaccine; metastasis; ds.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
OS	Homo sapiens.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
PN	W0200157182-A2.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
PD	09-AUG-2001.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
PF	17-JAN-2001; 2001WO-US01354.			PR	14-SEP-2000;	2000US-0232401.
XX				PR	14-SEP-2000;	2000US-0232401.
PR	31-JAN-2000; 2000US-0179065.			PR	14-SEP-2000;	2000US-0232401.
PR	04-FEB-2000; 2000US-0180628.			PR	14-SEP-2000;	2000US-0232401.
PR	24-FEB-2000; 2000US-0184661.			PR	14-SEP-2000;	2000US-0232401.
PR	02-MAR-2000; 2000US-0186350.			PR	14-SEP-2000;	2000US-0232401.
PR	16-MAR-2000; 2000US-01889874.			PR	14-SEP-2000;	2000US-0232401.
PR	17-MAR-2000; 2000US-0190076.			PR	14-SEP-2000;	2000US-0232401.
PR	18-APR-2000; 2000US-0198123.			PR	14-SEP-2000;	2000US-0232401.
PR	19-MAY-2000; 2000US-0205515.			PR	14-SEP-2000;	2000US-0232401.
PR	07-JUN-2000; 2000US-0219467.			PR	14-SEP-2000;	2000US-0232401.
PR	28-JUN-2000; 2000US-0214886.			PR	14-SEP-2000;	2000US-0232401.
PR	30-JUN-2000; 2000US-0215135.			PR	14-SEP-2000;	2000US-0232401.
PR	07-JUL-2000; 2000US-0216647.			PR	14-SEP-2000;	2000US-0232401.
PR	07-JUL-2000; 2000US-0216880.			PR	14-SEP-2000;	2000US-0232401.
PR	11-JUL-2000; 2000US-0217487.			PR	14-SEP-2000;	2000US-0232401.
PR	14-JUL-2000; 2000US-0217496.			PR	14-SEP-2000;	2000US-0232401.
PR	26-JUL-2000; 2000US-0220963.			PR	14-SEP-2000;	2000US-0232401.
PR	26-JUL-2000; 2000US-0220964.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0224418.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0224519.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0225213.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0225214.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0225466.			PR	14-SEP-2000;	2000US-0232401.
PR	14-AUG-2000; 2000US-0225758.			PR	14-SEP-2000;	2000US-0232401.
PR	18-AUG-2000; 2000US-0225768.			PR	14-SEP-2000;	2000US-0232401.
PR	22-AUG-2000; 2000US-0226881.			PR	14-SEP-2000;	2000US-0232401.
PR	22-AUG-2000; 2000US-0226881.			PR	14-SEP-2000;	2000US-0232401.
PR	23-AUG-2000; 2000US-0227182.			PR	14-SEP-2000;	2000US-0232401.
PR	30-AUG-2000; 2000US-0227009.			PR	14-SEP-2000;	2000US-0232401.
PR	01-SEP-2000; 2000US-0228924.			PR	14-SEP-2000;	2000US-0232401.
PR	01-SEP-2000; 2000US-0229343.			PR	14-SEP-2000;	2000US-0232401.
PR	01-SEP-2000; 2000US-0229344.			PR	14-SEP-2000;	2000US-0232401.
PR	01-SEP-2000; 2000US-0229345.			PR	14-SEP-2000;	2000US-0232401.
PR	05-SEP-2000; 2000US-0229509.			PR	14-SEP-2000;	2000US-0232401.
PR	06-SEP-2000; 2000US-0230431.			PR	14-SEP-2000;	2000US-0232401.
PR	06-SEP-2000; 2000US-0230438.			PR	14-SEP-2000;	2000US-0232401.
PR	08-SEP-2000; 2000US-0231242.			PR	14-SEP-2000;	2000US-0232401.

PR	17-NOV-2000;	2000US-0249264.	Db	581 CGGGTCCGGTAAACATTCCTCTCTAGTGGCTCGTGTTCAGTGGGGTTCCC 522
PR	17-NOV-2000;	2000US-0249365.	Qy	2335 TGCGACGGAGGCAGCAGGCAATTAGCTAGTTAGAGACTCGCTTGCGAAATTGCTCCA 2394
PR	17-NOV-2000;	2000US-0249397.	Db	521 TGCGACGGAGGCAGCAGGCAATTAGCTAGTTAGAGACTCGCTTGCGAAATTGCTCCA 462
PR	17-NOV-2000;	2000US-0249239.	Qy	2395 TTCCCTGAGAAAAGATAATTTCGCCCACTTAAGGAAGCCCTAACAACTATTCACC 2454
PR	01-DEC-2000;	2000US-0250160.	Qy	461 TTCCCTGAGAAAAGATAATTTCGCCCACTTAAGGAAGCCCTAACAACTATTCACC 402
PR	01-DEC-2000;	2000US-0250191.	Db	2455 AAAGACGGAGGGAAAGATCCAGGGGGCTCTGGGCCCGGTTCAGTGGGTGGA 2514
PR	05-DEC-2000;	2000US-0251030.	Qy	401 AAAGACGGAGGGCAAGATTCAGGGCTCTGGGCCCGGTTCAGTGGGTGGA 342
PR	05-DEC-2000;	2000US-0251988.	Db	2515 ATTATTAGCACCAGCTTGCTTCTGCGCTGGGCCAGGGCTGAACAGACCCGGGTGGA 2574
PR	06-DEC-2000;	2000US-0256719.	Qy	341 ATTATTAGCACCAGCTTGCTTCTGCGCTGGGCCAGGGCTGAACAGACCCGGGTGGA 282
PR	08-DEC-2000;	2000US-0251479.	Db	2575 GTCAGGGCTGTGCTTCCCGCTGCTTCCGCACTTAGGAGTGTGCTTGGGGGCCAT 2634
PR	08-DEC-2000;	2000US-0251856.	Qy	281 GTCAGGGCTGTGCTTCCGGCTGCTTCCGCACTTAGGAGTGTGCTTGGGGGCCAT 222
PR	08-DEC-2000;	2000US-0251868.	Db	2635 TTCACTTCTGACCTTCTCATCTGAAACAGGCTGATGCGCTGGCTGCTGCTA 2694
PR	08-DEC-2000;	2000US-0251869.	Db	221 TTCACTTCTGACCTTCTCATCTGAAACAGGCTGATGCGCTGGCTGCTA 162
PR	08-DEC-2000;	2000US-0251989.	Qy	2695 ATGACCCATAAACGTCACACTGGCTGC 2725
PR	11-DEC-2000;	2000US-0251990.	Db	161 ATGACCCATAAACGTCACACTGGCTGC 131
PR	05-JAN-2001;	2000US-0251097.		
PR	05-JAN-2001;	2001US-0259678.		
XX	(HUMA-) HUMAN GENOME SCI INC.			
PS				
PI	Rosen CA,	Barash SC,	Ruben SM;	
XX	WPI:	2001-483426/52.		
XX	Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis -			
PT				
PT				
XX	Disclosure; SEQ ID NO 30672; 3071PP + Sequence Listing; English.			
XX	AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM62170 to AAM9121. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patient's own production of (I). Additionally, (I) polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK6703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK51942 to AAK54950 and AAM62169 represent sequences used in the exemplification of the present invention.			
CC	Sequence 821 BP; 175 A; 251 C; 251 G; 144 T; 0 other;			
CC	Query Match 25.3%; Score 68.4; DB 22; Length 821;			
CC	Best Local Similarity 99.9%; Pred. No. 2.9e-140; Mismatches 690; Conservative 0; Indels 0; Gaps 0;			
CC	Matches 690; Score 68.4; Pred. No. 2.9e-140; Mismatches 690; Conservative 0; Indels 0; Gaps 0;			
Qy	2035 GGTGCGGTCGCCCTGTGACTTACCTGGACCTGGTGGACCACTGGTCCATTAA	2094	PA	(WHED) WHITEHEAD INST BIOMEDICAL RES.
Db	821 GGTGCGGTCGCCCTGTGACTTACCTGGACCTGGTGGACCACTGGTCCATTAA	762	XX	(AFFY-) AFFYMATRIX INC.
Qy	2095 CCCGGCTGACTCAGTGCGGGACAGCCGGACAGTGGTCAAGCCCTGGCAG	2154	PA	
Db	761 CCCGGCTGACTCAGTGCGGGACAGCCGGACAGTGGTCAAGCCCTGGCAG	702	XX	
Qy	2155 CCCGGCTCCTCTGGCTCTGGCTCTGGCTCTGGCTCTGGCTCTGGCTCTGG	2214	XX	PT Nucleic acid selected from one of 106 genes comprising single nucleotide polymorphisms, allele-specific oligonucleotides to the genes
Db	701 CCCGGCTCCTCTGGCTCTGGCTCTGGCTCTGGCTCTGGCTCTGGCTCTGG	642	PT	PT are useful for phenotypic correlations, forensics, paternity testing, medicine and genetic analysis -
Qy	2215 GTGGGGAATCACCGGGAAAGCCCGCCGCCGCCGCCGCCGCCGCCGCC	2274	XX	XX
Db	641 GTGGGGAATCACCGGGAAAGCCCGCCGCCGCCGCCGCCGCCGCCGCC	582	CC	The present invention is concerned with a number of human single nucleotide polymorphisms (SNPs) which the inventors identified in human genes. These SNPs can be used in disease diagnosis and prediction of an
Qy	2275 CGGGCGGCTTAACATTCCTCTGAGTGGCTGTTTCAAGTGGCTGTTTCA	2334	CC	

CC individual's susceptibility to disease, in forensic and paternity testing
 CC and in genetic mapping. In particular, the SNPs of the invention can be
 CC used to diagnose susceptibility to diseases of the cardiovascular,
 CC endocrine and neurological systems, such as coronary artery disease,
 CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
 CC diseases.
 CC Note: The degenerate codon within the sequence represents the position
 CC of an SNP, for example the letter S represents a polymorphism where the
 CC nucleotide may be C or G.

XX Sequence 358 BP; 58 A; 125 C; 109 G; 65 T; 1 other;

Query Match 11.7%; Score 318.6; DB 21; Length 358;
 Best Local Similarity 99.7%; Pred. No. 9.6e-60;

Matches 318; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TCAGTCGCTGGCCAGCCCTGCCGGCCAGATGCCGAGCTCATGTACAGCA 60

Db 40 TCAGTCGCTGGCCAGCCCTGCCGGCCAGATGCCGAGCTCATGTACAGCA 99

Qy 61 CAGGATGCCATTTCTGGTATCCCTGGCATCTGGCCGACTGGAGGCTCCCGTG 120

Db 100 CAGGATGCCATTTCTGGTATCCCTGGCATCTGGCCGACTGGAGGCTCCCGTG 159

Qy 121 AGACCCCTCCCTTATACATCCCTGGACCGGAGGGCTCCCTGGACTCATGCA 180

Db 150 AGACCCCTCCCTTATACATCCCTGGACCGGAGGGCTCCCTGGACTCATGCA 219

Qy 181 ATGTCAGGTACACCCAGGGCATCCATTCCAGCTCCTGGCGAGGCTCAGGCTG 240

Db 220 ATGTCAGGTACACCCAGGGCATCCATTCCAGCTCCTGGCGAGGCTCAGGCTG 279

Qy 241 GGCTCCCTTTGGATTCGGATTCGGCTGGAGCAATCTGTGTGTGTCT 300

Db 280 GGCTCCCTTTGGATTCGGATTCGGCTGGAGCAATCTGTGTGTGTCT 339

Qy 301 GGACCGATGGGAACTGC 319

Db 340 GGACCGATGGGAACTGC 358

RESULT 13
 AAK75859/C
 ID AAK75859 Standard; DNA; 18663 BP.

XX AAK75859;
 XX DT 07-NOV-2001 (first entry)

DB Human immune/haematopoietic antigen genomic sequence SEQ ID NO:30571.

KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer; cytotoxic; gene therapy; vaccine; metastasis; ds.

OS Homo sapiens.

PN WO200157182-A2.

XX PD 09-AUG-2001.

XX PF 17-JAN-2001; 2001W0-US01354.

XX DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:30571.

XX KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer; cytotoxic; gene therapy; vaccine; metastasis; ds.

OS Homo sapiens.

PN WO200157182-A2.

XX PD 09-AUG-2001.

XX PR 07-JUL-2000; 2000US-0216647.

XX PR 07-JUL-2000; 2000US-0216880.

XX PR 11-JUL-2000; 2000US-0217487.

XX PR 14-JUL-2000; 2000US-0218290.

XX PR 26-JUL-2000; 2000US-0220963.

XX PR 26-JUL-2000; 2000US-0220964.

XX PR 14-AUG-2000; 2000US-0224518.

XX PR 14-AUG-2000; 2000US-0224519.

XX PR 14-AUG-2000; 2000US-0225213.

XX PR 14-AUG-2000; 2000US-0225266.

XX PR 14-AUG-2000; 2000US-0225267.

XX PR 14-AUG-2000; 2000US-0225270.

XX PR 14-AUG-2000; 2000US-0225447.

XX PR 14-AUG-2000; 2000US-0225757.

XX PR 14-AUG-2000; 2000US-0225758.

XX PR 18-AUG-2000; 2000US-0226279.

XX PR 22-AUG-2000; 2000US-0226681.

XX PR 22-AUG-2000; 2000US-0226868.

XX PR 22-AUG-2000; 2000US-0227009.

XX PR 30-AUG-2000; 2000US-0228924.

XX PR 01-SEP-2000; 2000US-0229287.

XX PR 01-SEP-2000; 2000US-0229343.

XX PR 01-SEP-2000; 2000US-0229344.

XX PR 01-SEP-2000; 2000US-0229345.

XX PR 05-SEP-2000; 2000US-0229509.

XX PR 05-SEP-2000; 2000US-0229513.

XX PR 06-SEP-2000; 2000US-0230437.

XX PR 06-SEP-2000; 2000US-0230438.

XX PR 08-SEP-2000; 2000US-0231142.

XX PR 08-SEP-2000; 2000US-0231143.

XX PR 08-SEP-2000; 2000US-0231143.

XX PR 08-SEP-2000; 2000US-0231144.

XX PR 08-SEP-2000; 2000US-0231144.

XX PR 08-SEP-2000; 2000US-0232080.

XX PR 08-SEP-2000; 2000US-0232081.

XX PR 12-SEP-2000; 2000US-0231968.

XX PR 14-SEP-2000; 2000US-0232397.

XX PR 14-SEP-2000; 2000US-0232398.

XX PR 14-SEP-2000; 2000US-0232399.

XX PR 14-SEP-2000; 2000US-0232400.

XX PR 14-SEP-2000; 2000US-0232401.

XX PR 14-SEP-2000; 2000US-0233163.

XX PR 14-SEP-2000; 2000US-0233164.

XX PR 21-SEP-2000; 2000US-0233165.

XX PR 21-SEP-2000; 2000US-0233123.

XX PR 25-SEP-2000; 2000US-0234197.

XX PR 26-SEP-2000; 2000US-0234198.

XX PR 27-SEP-2000; 2000US-0235834.

XX PR 29-SEP-2000; 2000US-0235836.

XX PR 29-SEP-2000; 2000US-0236327.

XX PR 29-SEP-2000; 2000US-0236368.

XX PR 29-SEP-2000; 2000US-0236369.

XX PR 02-OCT-2000; 2000US-0237038.

XX PR 02-OCT-2000; 2000US-0237039.

XX PR 13-OCT-2000; 2000US-0237040.

XX PR 13-OCT-2000; 2000US-0239335.

XX PR 20-OCT-2000; 2000US-0240950.

XX PR 20-OCT-2000; 2000US-0241221.

XX PR 20-OCT-2000; 2000US-0241785.

XX PR 20-OCT-2000; 2000US-0241786.

XX PR 20-OCT-2000; 2000US-0241787.

PR 20-OCT-2000; 2000US-0241808.
 PR 20-OCT-2000; 2000US-0241809.
 PR 20-OCT-2000; 2000US-0241816.
 PR 01-NOV-2000; 2000US-0244617.
 PR 08-NOV-2000; 2000US-0246144.
 PR 08-NOV-2000; 2000US-0246175.
 PR 08-NOV-2000; 2000US-0246176.
 PR 08-NOV-2000; 2000US-0246177.
 PR 08-NOV-2000; 2000US-0246178.
 PR 08-NOV-2000; 2000US-0246523.
 PR 08-NOV-2000; 2000US-0246524.
 PR 08-NOV-2000; 2000US-0246525.
 PR 08-NOV-2000; 2000US-0246526.
 PR 08-NOV-2000; 2000US-0246528.
 PR 08-NOV-2000; 2000US-0246532.
 PR 08-NOV-2000; 2000US-0246539.
 PR 08-NOV-2000; 2000US-0246610.
 PR 08-NOV-2000; 2000US-0246611.
 PR 08-NOV-2000; 2000US-0246613.
 PR 17-NOV-2000; 2000US-0249207.
 PR 17-NOV-2000; 2000US-0249208.
 PR 17-NOV-2000; 2000US-0249209.
 PR 17-NOV-2000; 2000US-0249210.
 PR 17-NOV-2000; 2000US-0249211.
 PR 17-NOV-2000; 2000US-0249212.
 PR 17-NOV-2000; 2000US-0249213.
 PR 17-NOV-2000; 2000US-0249214.
 PR 17-NOV-2000; 2000US-0249215.
 PR 17-NOV-2000; 2000US-0249216.
 PR 17-NOV-2000; 2000US-0249217.
 PR 17-NOV-2000; 2000US-0249218.
 PR 17-NOV-2000; 2000US-0249219.
 PR 17-NOV-2000; 2000US-0249245.
 PR 17-NOV-2000; 2000US-0249264.
 PR 17-NOV-2000; 2000US-0249265.
 PR 17-NOV-2000; 2000US-0249297.
 PR 17-NOV-2000; 2000US-0249299.
 PR 01-DEC-2000; 2000US-0249300.
 PR 01-DEC-2000; 2000US-0250160.
 PR 05-DEC-2000; 2000US-0250391.
 PR 05-DEC-2000; 2000US-0251030.
 PR 05-DEC-2000; 2000US-0251388.
 PR 06-DEC-2000; 2000US-0256719.
 PR 08-DEC-2000; 2000US-0251856.
 PR 08-DEC-2000; 2000US-0251868.
 PR 08-DEC-2000; 2000US-0251869.
 PR 08-DEC-2000; 2000US-0251989.
 PR 11-DEC-2000; 2000US-0251990.
 PR 05-JAN-2001; 2001US-0259678.
 XX (HUMAN) HUMAN GENOME SCI INC.
 XX Rosen CA, Barash SC, Ruben SM;
 XX WPI: 2001-483426/52.
 XX Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis -
 XX Disclosure; SEQ ID NO 30671; 3071pp + Sequence listing; English.
 XX AAK4951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM6210 to AAM9121. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to

CC supplement the patient's own production of (I). Additionally, (I) polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK54942 to AAK51950 and AAM82169 represent sequences used in the exemplification of the present invention.

XX Sequence 18663 BP; 4208 A; 5303 C; 5212 G; 3940 T; 0 other;

SQ Query Match 9 5%; Score 258 4; DB 22; Length 18663;
 Best Local Similarity 99.6%; Pred. No. 3e-46;
 Matches 259; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 475 AGAGCGCACTGCACTTGTCTAGGGATCTCGGTCAGCGAGG 534
 Db 16336 AGGACGGCACTGTCACATGGTCTACGGGTCTCGAGGGCTCAGCGAGG 16277

Qy 535 CCATCAACGGTCGGGCTGAGATGGGTGAGAGGGTGCAGGGGGTCACTGGCTCAGTGGCTCAGATGGGTGAGAGGGTCACTGGCTCAGTGGCTCAGAGGCCAATA 594
 Db 16276 CCATCAACGGTCGGGCTGAGATGGGTGAGAGGGTCACTGGCTCAGTGGCTCAGAGGCCAATA 16217

Qy 595 TCCCCGAACCGGAGTTGCCCTCAGACGGCTGACCATGGTCCAAATATCC 654
 Db 16216 TCCCCGAACCGGAGTTGCCCTCAGACGGCTGACCATGGTCCAAATATCC 16157

Qy 655 AGATCCCCAGGAGACAGCTACTGGTGTCTAATTAGGAGTCCAAAGGGCTCT 714
 Db 16156 AGATCCCCAGGAGACAGCTACTGGTGTCTAATTAGGAGTCCAAAGGGCTCT 16097

Qy 715 CTCGGGACCAACATATTACAAG 734
 Db 16096 CTCGGGACCAACATATTACAAG 16077

RESULT 14
 ABL02837
 ID ABL02837 standard; cDNA; 2782 BP.
 XX ABL02837;
 AC
 XX DT 26-MAR-2002 (first entry)
 XX DE Drosophila melanogaster expressed polynucleotide SEQ ID NO 2993
 XX KW Drosophila; developmental biology; cell signalling; insecticide;
 XX KW pharmaceutical; gene; ss.
 XX OS Drosophila melanogaster.
 XX PN WO200171042-A2.
 XX PR 23-MAR-2001; 2001WO-US09231.
 XX PR 27-SEP-2001.
 XX PR 23-MAR-2000; 2000US-191637P.
 XX PR 11-TUL-2000; 2000US-0614150.
 XX PA (PEKE) PE CORP NY.
 XX PI Venter JC, Adams M, Li PWD, Myers EW;
 XX DR WPI; 2001-65660/75.
 XX PR P-DB; ABB58734.
 XX PT New isolated nucleic acid detection reagent for detecting 1000 or more genes from Drosophila and for elucidating cell signalling and cell-cell interactions -
 XX PS Claim 1; SEQ ID NO 2993; 21pp + Sequence Listing; English.

PR	01-SEP-2000;	2000DE-1043826.	
XX	XX	XX	
XX	(EPIC-)	EPICOMICS AG.	
XX	Olek A,	Piepenbrock C,	
XX	Berlin K;		
PS	WPI;	2002-154759/20.	
XX	XX	XX	
XX	The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.	XX	
XX	Sequence 2037 BP; 417 A; 49 C; 558 G; 1013 T; 0 other;	XX	
XX	Query Match 7.1%; Score 191; DB 24; Length 2037;	XX	
XX	Best Local Similarity 74.2%; Pred. No. 2.9e-32;	XX	
XX	Mismatches 0; Conservative 0; Indels 0; Gaps 0;	XX	
XX	Matches 244; CC	XX	
Qy	1 TCAAGTCGGCCAGCCGGCCAGCCGGCCAGCCGGAGGAGCCCTCAGTACACCA 60	Qy	1 TCAAGTCGGCCAGCCGGCCAGCCGGCCAGCCGGAGGAGCCCTCAGTACACCA 60
Ddb	338 TCAATCGCTAAACCTAACCTAACCCGACACCCAAATACGAAAAACCTTACATAACAA 279	Ddb	338 TCAATCGCTAAACCTAACCTAACCCGACACCCAAATACGAAAAACCTTACATAACAA 279
Qy	61 CAGCAGTGGCATCTTCGGTCAATCCTCGTGGCAGCTGAGGGCTGGGTCTCCCTG 120	Qy	61 CAGCAGTGGCATCTTCGGTCAATCCTCGTGGCAGCTGAGGGCTGGGTCTCCCTG 120
Ddb	278 CAACTATACCATCTTCCATATCCTATAACCGACTACAAACTGACTCCCTGA 219	Ddb	278 CAACTATACCATCTTCCATATCCTATAACCGACTACAAACTGACTCCCTGA 219
Qy	121 AGAGCCCTCCCTCCCTATCATCCATCCCCTGGACCCGGAGGGTCCCTGGAGCCTCATGGA 180	Qy	121 AGAGCCCTCCCTCCCTATCATCCATCCCCTGGACCCGGAGGGTCCCTGGAGCCTCATGGA 180
Ddb	218 AAAACCCCTCCCTCATACCCCTPAAACCCGAATAACTCTCATAAA 159	Ddb	218 AAAACCCCTCCCTCATACCCCTPAAACCCGAATAACTCTCATAAA 159
Qy	181 ATGTCAGCTACACCCGGCCATCCATTCGAGCTCTGGTGGGGCTCAAGGGT 240	Qy	181 ATGTCAGCTACACCCGGCCATCCATTCGAGCTCTGGTGGGGCTCAAGGGT 240
Ddb	158 ATATCAACTACACCCAAAAACCATCCATTCGAGCTCTGGTGGGGCTCAAGGGT 240	Ddb	158 ATATCAACTACACCCAAAAACCATCCATTCGAGCTCTGGTGGGGCTCAAGGGT 240
Qy	241 GCGTCCTGTTGGATGTCGACCTGGGGAGCTGAGACGAGATCTCGTGTGCTCT 300	Qy	61 CACCAAGTGGCCATCTCTGGTCACTCTGGTGGGGCTGGGACTGGCTCCCGTG 120
Ddb	98 ACGGCTCTTAAATATACGACCTGAGCTTAAACGAAATCTCGTAATCTCT 39	Ddb	278 CACATATAACCATCTCTTAATCATCCCTAAACCGACTAAACCTCTCTTA 219
Qy	301 GGACCGATGGGACACTGGCTATTGGCG 329	Qy	121 AGAGCCCTCCCTCCATCACCCCTGGACCCGGAGGGTCCCTGGAGCTCTCATGGA 180
Ddb	38 AAACCGATAAAACGACTACCTATTAGCG 10	Ddb	218 AAAACCCCTCCCTCATACCCCTAAACCGAAATACTCTCTTA 159
XX	RESULT 16	XX	
XX	PRAB28399.C	XX	
XX	ADD28399 standard; DNA; 2037 BP.	XX	
XX	AAD28399;	XX	
XX	22-APR-2002 (first entry)	XX	
XX	Human chemically treated genomic DNA #40.	XX	
XX	Human; cytostatic; antidepressant; neuroleptic; nootropic; antiaddictive; adrenergic alpha 1C-receptor; cytosine methylation; therapy; alcoholism; behavioral disorder; neurological; psychiatric; cancer; schizophrenia; Tourette's syndrome; smoking; human immunodeficiency virus dementia; drug abuse; migraine; ds.	XX	
XX	Homo sapiens.	XX	
XX	W0200203809-A2.	XX	
XX	10-JAN-2002.	XX	
XX	02-JUL-2001; 2001WO-EP07540.	XX	
XX	30-JUN-2002; 2000DE-1032529.	XX	
XX	RESULT 17	XX	
XX	ABL34296	XX	
XX	ID ABL34296 standard; DNA; 2037 BP.	XX	
XX	AC	XX	
XX	ABL34296;	XX	
XX	DT	XX	
XX	26-MAR-2002 (first entry)	XX	
XX	Human immune system disease; cytosine methylation; antiasthmatic; neuroprotective; anti-HIV; anticouvolulant; ophthalmological; KW	XX	
KW		KW	
KW		KW	
KW		KW	

KW	antirheumatic; antiarthritic; cancer; eye disease; arteriosclerosis; anaemia;	AC	AAD28398;
KW	acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy;	XX	XX
KW	neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;	DT	22-APR-2002 (first entry)
KW	Gene; ds.	XX	Human chemically treated genomic DNA #39.
OS	Homo sapiens.	XX	
XX	WO200200928-A2.	XX	
XX	03-JAN-2002.	XX	
XX	02-JUL-2001; 2001WO-EP07537.	XX	
XX	30-JUN-2000; 2000DE-1032529.	XX	
PR	01-SEP-2000; 2000DE-1043826.	XX	
PA	(EPIC-) EPIGENOMICS AG.	XX	
PA	Olek A, Piepenbrock C, Berlin K;	XX	
DR	WPI; 2002-130909/17.	XX	
XX	Nucleic acid comprising fragment of chemically modified gene, useful	XX	
PT	for diagnosis and treatment of diseases associated with abnormal	XX	
PT	cytosine methylation.	XX	
PS	Claim 1; SEQ ID NO 2269; 32pp +. Sequence Listing; German.	XX	
CC	The present invention provides a number of human immune system associated	CC	The invention relates to nucleic acids comprising a segment of chemically
CC	genes which are modified by the methylation of cytosines. The sequences	CC	pretreated DNA of adrenergic alpha-1C receptor gene. The invention also
CC	can be used in the diagnosis and treatment of immune system disorders,	CC	relates to oligonucleotides or peptide nucleic acid (PNA) oligomers
CC	including eye diseases such as retinopathy, neovascular glaucoma and	CC	useful for detecting cytosine methylations. The pretreated DNA is useful
CC	macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid	CC	for the diagnosis or therapy of behavioural disorders, neurological
CC	leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis,	CC	disorders and cancer, in particular major depressive disorder, Tourette's
CC	rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel	CC	syndrome, schizophrenia, psychiatric and neurological disorders, smoking,
CC	diseases. The present sequence is a gene of the invention.	CC	drug abuse, alcoholism, personality traits, compulsive gambling, human
XX	Sequence 2037 BP; 417 A; 49 C; 645 G; 926 T; 0 other;	XX	immunodeficiency virus, dementia, migraine, behaviours in schizophrenia
CC	6.6%; Score 179.6; DB 24; Length 2037;	CC	and schizoaffective patients, and suicidal behaviour in patients with
CC	Best Local Similarity 71.5%; Pred. No. 2.4e-29;	CC	schizophrenia. The nucleic acid is useful for detecting the methylation
Matches 236; Conservative 0; Mismatches 94; Indels 0; Gaps 0;	DB 1700 TTAGCTCTGGCCAGCTGCCAGCTGCCAGCCACATGCCAGGCCAGCTACGCA 60	CC	state of all CpG dinucleotides and/or single nucleotide polymorphisms
Qy 1 TCAGTCCTCTGGCCAGCTGCCAGCTGCCAGCCACATGCCAGGCCAGCTACGCA 60	CC	(SNPs). The present sequence is human chemically treated genomic DNA.	
Db 1700 TTAGCTCTGGCTAGTTGCTGGTTATGCTGGCTGGTTATGATACTA 1759	XX	Sequence 2037 BP; 417 A; 49 C; 645 G; 926 T; 0 other;	
Qy 61 CAGCAGTGGCCATCTCTGGTCATCCTGGTGGCCACATGCCAGGGCTGCCCTG 120	SQ	Query Match 6.6%; Score 179.6; DB 24; Length 2037;	
Db 1760 TAGTAGGTGTTATTTGTGTTATTTGTGTTATTTGTGTTATTTGTGTTATTTGTG 1819	Qy 1 TCAGTCCTCTGGCCAGCTGCCAGCTGCCAGCCACATGCCAGGCCAGCTACGCA 60	Best Local Similarity 71.5%; Pred. No. 2.4e-29;	
Qy 121 AGAGCCCCCTCCCTATCATCCATTCAGCTCTGGAGCTCATCTGGTGGTCAAGGCTG 180	Db 1700 TTAGCTCTGGCTAGTTGCTGGTTATGCTGGCTGGTTATGATACTA 1759	Matches 236; Conservative 0; Mismatches 94; Indels 0; Gaps 0;	
Db 1820 AGAGTTTTTTTATATTATTTATTTATTTATTTATTTATTTATTTATTTATGGA 1879	Qy 61 CAGCAGTGGCCATCTCTGGTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 120		
Qy 181 ATGTCAGCTACACCAAGGGCCATCCATTCAGCTCTGGAGCTCATCTGGTGGTCAAGGCTG 240	Db 1760 TAGTAGGTGTTATTTGTGTTATTTGTGTTATTTGTGTTATTTGTGTTATTTGTG 1819		
Db 1880 ATGTCAGCTATTTATTTAGGGTATTATTTAGTTTGTGTTATTTAGTTTGTGTTATTTGTG 1939	Qy 121 AGAGCCCCCTCCCTATCATCCATTCAGCTCTGGAGCTCATCTGGTGGTCAAGGCTG 180		
Qy 241 GCGTCCTGTTGGATGGGACCTGGGACCTGGGAGCTGAGACCTGGTGGCTCTGGTGGCTCT 300	Db 1820 AGAGTTTTTTTATATTATTTATTTATTTATTTATTTATTTATTTATGGA 1879		
Db 1940 GCGTTTTGGATGGGATGGTGGATGGTGGATGGTGGATGGTGGATGGTGGATGGTGGT 1999	Qy 181 ATGTCAGCTACACCAAGGGCCATCCATTCAGCTCTGGAGCTCATCTGGTGGTCAAGGCTG 240		
Qy 301 GGACGGATGGGACACTGGCTATTTGGCTATTGGCGG 330	Db 1880 ATGTCAGCTATTTATTTAGGGTATTATTTAGTTTGTGTTATTTATTTATTTATGGA 1879		
Db 2000 GGATGATGGGATATTGGTGGCG 2029	Qy 181 ATGTCAGCTACACCAAGGGCCATCCATTCAGCTCTGGAGCTCATCTGGTGGTCAAGGCTG 240		
XX	RESULT 18		
XX	AAD28398		
XX	ID AAD28398 standard; DNA; 2037 BP.		

RESULT 19	
Db	1940 GCGTTTGTTCGGATTCATCGTCGCACTGGCTTTCGAGACTTGGG 330
Qy	301 GGACCCATGGGACACTGGCTTTCGAGACTTGGGAAACCTAGATTCTGGTGTGTTT 1999
Db	2000 GGATCCATGGGATATGTTATTTGGG 2029
RESULT 18	
Db	AAC70716 AAC70716 standard; DNA; 178 BP.
Qy	XX ID AAC70716
Db	XX AC AAC70716;
Qy	XX DT 09-FEB-2001 (First entry)
Db	XX DT 09-FEB-2001 (First entry)
Qy	XX DB Single nucleotide polymorphism containing sequence #182.
Db	XX KW Single nucleotide polymorphism; SNP; human; genetic disease; disease susceptibility; cardiovascular system; endocrine system; neurological system; forensic testing; paternity testing; ds.
Qy	XX DB Single nucleotide polymorphism containing sequence #182.
Db	XX KW Single nucleotide polymorphism; SNP; human; genetic disease; disease susceptibility; cardiovascular system; endocrine system; neurological system; forensic testing; paternity testing; ds.
Qy	XX OS Homo sapiens.
Db	XX XX WO200058519-A2
Qy	XX PN WO200058519-A2
Db	XX XX PD 05-OCT-2000.
Qy	XX XX PD 05-OCT-2000.
Db	XX PF 30-MAR-2000; 2000WO-US08440.
Qy	XX PR 31-MAR-1999; 99US-0127448.
Db	XX XX PA (WHERD) WHITEHEAD INST BIOMEDICAL RES.
Qy	XX PA (WHERD) WHITEHEAD INST BIOMEDICAL RES.
Db	XX PA (AFFYX-) AFFYMETRIX INC.
Qy	XX PI Altshuler D, Gargill M, Daley GQ, Ireland US, Landier ES;
Db	XX PI Lipschutz RJ, Patil N, Sklar P;
Qy	XX XX WPI, 20000-61172/58.
Db	XX XX DR 2000-61172/58.
Qy	XX IPT Nucleic acid selected from one of 106 genes comprising single nucleotide polymorphisms, allele-specific oligonucleotides to the genes are useful for phenotypic correlations, forensics, paternity testing, medicine and genetic analysis -
Db	XX IPT Nucleic acid selected from one of 106 genes comprising single nucleotide polymorphisms (SNPs) which the inventors identified in human genes. These SNPs can be used in disease diagnosis and prediction of an individual's susceptibility to disease, in forensic and paternity testing and in genetic mapping. In particular, the SNPs of the invention can be used to diagnose susceptibility to diseases of the cardiovascular, endocrine and neurological systems, such as coronary artery disease, schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's diseases.
Qy	XX CC Note: The degenerate codon within the sequence represents the position of an SNP, for example the letter S represents a polymorphism where the nucleotide may be C or G.
Db	XX SQ Sequence 178 BP; 32 A; 68 C; 39 G; 38 T; 1 other;
Qy	XX CC Query Match 6.1%; Score 165; DB 21; Length 178;
Db	XX CC Best Local Similarity 98.8%; Pred. No. 2e-26;
Qy	XX CC Matches 165; Conservative 1; Nismatches 1; Indels 0; Gaps 0;
Db	XX CC
Qy	1547 CAACAGGTTCACAGGAGATGTCAGCTGGCTTCAGCTGGCTTCAGCAGTT 1606
Db	4 CACCAAGTTTCACAGGAGATGTCAGCTGGCTTCAGCTGGCTTCAGCAGTT 1606
Qy	1607 CACCTCTGTCCTCCGGAACTCCCTCAACCTGCTTCAGGGCTCTAACAGCTTCGC 1666
Db	4 CACCAAGTTTCACAGGAGATGTCAGCTGGCTTCAGCTGGCTTCAGCAGTT 1666

Qy	1667	GCCTCATCCATGCAACTAACAGTCCAGCGTCCGCTTCCAGG	1713
Db	124	GCCTCATCCATGCAACTAACAGTCCAGCGTCCGCTTCCAGG	170
RESULT 20			
	AACT0722	AACT0722 Standard; DNA; 178 BP.	
ID	AACT0722		
XX	XX	XX	09-FEB-2001 (first entry)
DE	DE	DE	Single nucleotide polymorphism containing sequence #184.
XX	KW	KW	Single nucleotide polymorphism; SNP; human; genetic disease;
KW	KW	KW	disease susceptibility; cardiovascular system; endocrine system;
KW	KW	KW	neurological system; forensic testing; paternity testing; ds.
XX	XX	XX	Homo sapiens.
OS	PN	PN	W0200058519-A2.
XX	XX	XX	
PD	PD	PD	05-OCT-2000.
XX	PF	PF	30-MAR-2000; 2000WO-US08440.
XX	PR	PR	31-MAR-1999; 99US-0127248.
XX	PA	PA	(WHED) WHITEHEAD INST BIOMEDICAL RES.
XX	PA	PA	PAFFY- AFFYMETRIX INC.
PI	PI	PI	Altshuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;
XX	PI	PI	Lipshutz RJ, Patil N, Sklar P;
XX	DR	DR	WPI; 2000-611722/58.
XX	PT	PT	Nucleic acid selected from one of 106 genes comprising single nucleotide polymorphisms (SNPs), which the inventors identified as SNPs can be used in disease diagnosis and prediction of individual's susceptibility to disease, in forensic and paternity analysis -
PT	PT	PT	are useful for phenotypic correlations, forensics, paternity
PT	PT	PT	medicine and genetic analysis -
XX	PS	PS	Claim 1; Fig 5; 214PP; English.
XX	CC	CC	The present invention is concerned with a number of human single nucleotide polymorphisms (SNPs), which the inventors identified as SNPs can be used in disease diagnosis and prediction of individual's susceptibility to disease, in forensic and paternity analysis -
CC	CC	CC	and in genetic mapping. In particular, the SNPs of the invention used to diagnose susceptibility to diseases of the cardiovascular
CC	CC	CC	endocrine and neurological systems, such as coronary artery disease, schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's diseases.
CC	CC	CC	Note: The degenerate codon within the sequence represents the
CC	CC	CC	of an SNP, for example the letter S represents a polymorphism nucleotide may be C or G.
XX	SQ	SQ	Sequence 178 BP; 32 A; 69 C; 39 G; 37 T; 1 other;
Query Match 6.1%; Score 165; DB 21; Length 178;			
Best Local Similarity 98.8%; Pred. No. 2e-26;			
Matches 165; Conservative 1; Mismatches 1; Indels 0;			
Qy	1547	CAACAGTTCAACAAACAGGATCTGCACCTGCCCTCAAGGGTCCGTGTC	
Db	4	CACAGGTTCACAAACAGGATCTGCACCTGCCCTCAAGGGTCCGTGTC	
Qy	1607	CACTCTGTTCCCTGGAACTCTCAACCGCACTACTGAAAGGCCCTGTACA	
Db	64	CACTCTGTTCCCTGGAACTCTCAACCGCACTACTGAAAGGCCCTGTACA	
Qy	1667	GCACATCTCCATGCAAGTCAGGCTCCCTGCTTCCGCTTCAGG	1713

PRO polypeptides, and to detect the presence of mammalian lung, colon, breast, prostate, rectal, cervical or liver tumours by comparing PRO polypeptide expression in cell samples to that in a control sample. Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or differentiation of chondrocytes, the proliferation or gene expression in pericyte cells, the release of proteoglycans from cartilage, the proliferation of inner ear utricular supporting cells or of T-lymphocytes, the release of a cytokine from peripheral blood monocytes (PBMCs), or the proliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes, or inhibit binding of A-peptide to factor VIIA. The PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polynucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, transgenic or knock out animals and can be used in gene therapy.
Sequence 2150 BP; 586 A; 496 C; 499 G; 569 T; 0 Other;
Query Match 5.4%; Score 146.8; DB 22; Length 2150;
Best Local Similarity 47.3%; Pred. No. 3.2e-22;
Matches 618; Conservative 0; Mismatches 667; Indels 21; Gaps 5;
Qy 187 GCTACCCCCAGGGCCATCCATTGTCAGTCCTGCTGGCGAGGTCAAAGCTGGCTGCC 24
Db 119 GCTGGGCCACGGGCAAGGATGCCCTTCAGCTGCGCTCCACAGTGTGCACTGCAAGCTACG 171
Qy 247 TG--TTTGGGATGTCGACGGTGGAGGCTGTGAGACGAGATCTGTGTGTCTGGCTCTGGGA 303
Db 179 TGGGCTTCGGTTCTGCCAACCGGGCCCTGGCTCCGGGAACTGTCGTCTGGCGGGG 231
Qy 304 CGATGGGGACACTGCCTAATTGGGACCCGCTGGTGGACCAAGAGGGCAGATCCACC 367
Db 239 TGGCCACGGGCTACCTCAGGATTATTAAATGCAATAATAGAGATGAA 291
Qy 364 TGGATCCCCAGGGACTACGGGCTGGTGGAGGCTGGAGGGACCCAGGGCTGACCC 422
Db 299 AAGATGCTACCAAGATTACCATPTGAATAATGGCATGGAAAATAGCACACACAATAA 356
Qy 424 TGCCTTCAAGGGCCCTTGGCACTGGAACCCAGGATTTCCTCATGAAAGGGCA 481
Db 359 TTGAATTACAGAGGCTGATATATGTGCAATAATGCAAGAGTAAACGATAGTAGA 411
Qy 484 CTGTCCACITGGTCTACGGGATCTGGGATCTGGGGCTGAGGGCTCACTGGAGGCCATCAACG 541
Db 419 CTGTGAGAGTGTATCTGGCTACACCATGAGATGAGGAAAGCTGGTCCAAAGTAC 471
Qy 544 GCTGGCCCGAGATGGGGTGGAGGGTGGCACTCTGAGGCCATTATTCGGCAAC 601
Db 479 ---ATGACTCCTAAATACGGGCCAACAGTGTGGTTTAATGAAATCTGTGAAAAAC---TA 531
Qy 604 CGGAGTTGCCCTAACAGCTGGCACCATGGGGCTCAAGTCCAAATATCGATCCCCA 666
Db 533 GTCGTGTTATACACGCTTACCATACTTGTATCTGTTAACGACCTCCCTCCCA 591
Qy 664 GCCAGGAGGACCTGCTACTGGGTGCTACATTAAGGAGCTTCCAAAGGGCTCTCTCGCACC 722
Db 593 ACAAAAGATACACATATGGGCAAAATGTTAAATTCCTGTGTCCAAAGAAAGCATC 651
Qy 724 ACATTTACAGTACAGGCCATCTCCTACAGGGCACTGGCCCTTGGCACACATGG 789
Db 653 ATGTTAAAGGTGCGCCATGCTGTTAACGAGGECATGAGATGTGGTCACACATCC 713
Qy 784 AAGTCTTCAGTGGCCCGA---GATGAGAAGGCTCCCCAATCTGGGGCTCTGGG 841
Db 713 TGGCTTATCAGTGGCAAGAACATTAAACGACGCTTCTGGATTCAGTGGCAACAGTGT 772
Qy 841 ACTCCAGTGAAGAACCGGACCGCTCAACTGCGCCACGTCGCTGGGCGCC 901
Db 773 ATCACCCCAACATGCCGATGCAATCTCACCTGAAACTGTGATTTGCTGGCTA 833
Qy 901 TGGGGCCAAAGGGCTTATCTCCAGAGAACGGCCCTGGCTTCGGGGTCAAGGGT 961

PR	29-OCT-1998;	98W0-US22991;
PR	29-OCT-1998;	98W0-US22992;
PR	20-NOV-1998;	98W0-US4855;
PR	01-DEC-1998;	98W0-US225108;
PR	05-JAN-1999;	99W0-US00106;
PR	08-MAR-1999;	99W0-US00208;
PR	10-MAR-1999;	99W0-US05190;
PR	20-APR-1999;	99W0-US08615;
PR	14-MAY-1999;	99W0-US10733;
PR	02-JUN-1999;	99W0-US12252;
PR	01-SEP-1999;	99W0-US20111;
PR	08-SEP-1999;	99W0-US20594;
PR	13-SEP-1999;	99W0-US20944;
PR	15-SEP-1999;	99W0-US210547;
PR	15-SEP-1999;	99W0-US228634;
PR	05-OCT-1999;	99W0-US3089;
PR	29-NOV-1999;	99W0-US228214;
PR	30-NOV-1999;	99W0-US228313;
PR	02-DEC-1999;	99W0-US28564;
PR	02-DEC-1999;	99W0-US28565;
PR	16-DIC-1999;	99W0-US30095;
PR	20-DEC-1999;	99W0-US30911;
PR	20-DEC-1999;	99W0-US30939;
PR	22-DEC-1999;	99W0-US30720;
PR	30-DEC-1999;	99W0-US31243;
PR	30-DEC-1999;	99W0-US31274;
PR	05-JAN-2000;	2000W0-US00219;
PR	06-JAN-2000;	2000W0-US00277;
PR	06-JAN-2000;	2000W0-US03176;
PR	11-FEB-2000;	2000W0-US03655;
PR	18-FEB-2000;	2000W0-US04241;
PR	18-FEB-2000;	2000W0-US04342;
PR	22-FEB-2000;	2000W0-US04914;
PR	24-FEB-2000;	2000W0-US04914;
PR	24-FEB-2000;	2000W0-US05004;
PR	01-MAR-2000;	2000W0-US05601;
PR	02-MAR-2000;	2000W0-US05746;
PR	02-MAR-2000;	2000W0-US05841;
PR	10-MAR-2000;	2000W0-US05841;
PR	15-MAR-2000;	2000W0-US05841;
PR	20-MAR-2000;	2000W0-US05884;
PR	21-MAR-2000;	2000W0-US07377;
PR	30-MAR-2000;	2000W0-US07532;
PR	17-MAY-2000;	2000W0-US08439;
PR	22-MAY-2000;	2000W0-US13705;
PR	08-NOV-2000;	2000W0-US14042;
PR	10-JUN-2000;	2000W0-US14941;
PR	01-DEC-2000;	2000W0-US15264;
PR	28-JUL-2000;	2000W0-US2678;
PR	20-DEC-2000;	2000W0-US34956;
PR	28-FEB-2001;	2001W0-US06520;
PR	01-MAR-2001;	2001W0-US06666;
PR	25-MAY-2001;	2001W0-US17092;
PR	01-JUN-2001;	2001W0-US17800;
PR	20-JUN-2001;	2001W0-US19692;
PR	22-JUN-2001;	2001W0-US20116;
PR	29-JUN-2001;	2001W0-US21066;
PR	09-JUL-2001;	2001W0-US21735;
PR	20-DEC-2000;	2000W0-US747259;
PR	28-FEB-2001;	2001W0-US796498;
PR	09-MAR-2001;	2001W0-US802706;
PR	14-MAR-2001;	2001W0-US806889;
PR	22-MAR-2001;	2001W0-US816744;
PR	05-APR-2001;	2001W0-US28366;

PR	10-MAY-2001;	2001US0854280.
PR	10-MAY-2001;	2001US0854280.
PR	18-MAY-2001;	2001US086016.
PR	25-MAY-2001;	2001US086028.
PR	25-MAY-2001;	2001US086034.
PR	01-JUN-2001;	2001US0872035.
PR	05-JUN-2001;	2001US0874503.
PR	14-JUN-2001;	2001US0882636.
PR	19-JUN-2001;	2001US0886342.
PR	21-JUN-2001;	2001US0887879.
PR	18-JUL-2001;	2001US0898827.
PR	06-AUG-2001;	2001US0924419.
PR	09-AUG-2001;	2001US0927996.
PR	16-AUG-2001;	2001US0931836.
PR	19-DEC-2001;	2001US0928072.
XX	PA (GETH) GENENTECH INC.	
XX	PI Baker KP, Beresini M, DeForrest M,	
PI Gerritsen MB, Goddard A, Goo J,		
PI Smith V, Stewart TA, Tumas I,		
XX	WPI; 2003-332040/31.	
DR	DR p-PSDB; ABU6664.	
XX	PT New secreted and transmembrane	
PT	PT therapy, in chromosome and gene	
PT	PT tissue typing, and in chromosome	
XX	PS Claim 2; Fig 189; 660pp; Engli	
XX	CC The present invention relates	
CC	CC to polypeptides, and the polynuc	
CC	CC PRO polypeptides are secreted	
CC	CC and polypeptides are useful for de	
CC	CC linking biactive molecules to	
CC	CC for modulating biological activi	
CC	CC polypeptides, and for for iden	
CC	CC The PRO polypeptides are usef	
CC	CC tumour necrosis factor (TNF)- α	
CC	CC the proliferation or differenti	
CC	CC presence of tumours. The polyn	
CC	CC polypeptides are useful as hyb	
CC	CC gen mapping, in the generatio	
CC	CC preparation of PRO polypeptides	
CC	CC knockout animals, for the gene	
CC	CC disorders, and in gene therapy	
CC	CC encoding the human PRO polype	
CC	CC Note: The sequence data for the	
CC	CC format directly from the USPTO	
CC	CC seqdata.uspto.gov/pst/pstDIDEntr	
XX	SQ Sequence 2150 BP; 586 A; 496 C	
Qy	Query Match 5 4%; S	
Db	Best Local Similarity 47.3%; P	
Db	Matches 618; Conservative	
Qy	187 GCTACACCCAGGGCCATCC	
Db	119 GCTGAGCCAGGGCGAGCC	
Qy	247 TG--TTGGGATGTCGAGCC	
Db	179 TGGGCTTCGCTTCTCGCCCAA	
Qy	304 CGGATGGGACAGTCGCTTAT	
Db	239 TGGGCCACGGGGCCCTACCC	
Qy	364 TGGATCCAGCAGGACTACCA	
Db	299 AGATCTTCAGTCAGCTTCAGTC	

Qy	424	TGCTTTCAGAAGAGCCCTTGGCACCTCGACCCAAAGGATTAACCTCATTTGAAAGACGCCA	483	RESULT 24
Db	359	TGGAATTACCAAGAGGTGATACATGACATAATGACAGACTAAAGGATAGA	418	ACA04118
Db	484	CTGTCACCTGGTCTGGATTCTGGATCTGGCTACTGGGCAATCAAG	543	ACA04118 standard; cDNA; 2150 BP.
Qy	419	CTGTGAGTGATCTGGCTTACCCATGAAAGATGCCAACTGGAC	478	ACA04118;
Db	544	GCCTGGCTCGAGATGGGTCAGAGGGTCAGCTCTGAAAGCCAAATCCCGAAC	603	AC
Db	479	--ATGACTCCATAGGGCACAAAGATTGGTGGTTAATCTGAGAAA	532	XX
Qy	604	CGGAGTTCCTCAGGGTSCACCATGGGTCAGGCTCCAAATATCCAGATGCCA	663	XX
Db	533	GTGCTATCTACAGCCTTACCACTATCTGATCTGGTAATCTGGT	592	KW
Qy	664	GCAGGGGACCCAGTACTGGCTCATATTAGGAGCTCCAAAGGCTTCCTGECACC	723	KW
Db	593	ACAAAGATAACATATTGGTCCAAATGTTAAAGATTCTGTGTCAGAAAGC	652	KW
Qy	724	ACATTAACTGAGCAGCCCCATGTCACACAGGATAGGECCTTGTCACCA	783	XX
Db	653	ATGTAATAAGTTGACAGTGTGATACAGAGGCCATGAGAGCTT	712	XX
Qy	784	AAGTCCTCAGTCAGGCCCGA--GATGGACAGCTCCCACTTCAGGGGCTCGG	840	XX
Db	713	TGTCCTPATAGTCAGCAACACTTTAACGACAGCTTCTGAGTCGGCAACGAGTGT	772	XX
Qy	841	ACTCCAGATGAACCCGACCCCTCAACTACTGCGCAAGTGTGGCCCTGGGCC	900	XX
Db	773	ATCACCCCACATGCCCCATGATTCTCACCTGTGAAACTGTGATTTSCCTGGCTA	832	XX
Qy	901	TCGGTGCACAGCCATTAACTACCAAGGAGCCCTTGCCCTTGCGGGT	960	XX
Db	833	TTGGTGAAGGGCTTTCTATCCACCTCATGTTGATPATCCCTTGACTCTATTAG	892	XX
Qy	961	CCTCCAGATATCTCGCCTGAAAGTCTACCTACCAACCCACTGGTATAGAAAGC	1020	XX
Db	893	ATCCGATATCTGCTCTAGACTTAACTATGATAATCCCACCTATGAGCTAA	952	XX
Qy	1021	ACGACTCTCAGCATGGCTGTACTACAGCCAGCTGGCCCTAACCGGGGA	1080	XX
Db	953	TAGATAATTCTGGACTGAGTTTACAAATGATGCTGGG	1012	XX
Qy	1081	TCATGGAGCTGGACTGTGTAACCGCACTGGCTGATGCCATCCCGCT	1140	XX
Db	1013	TGATTGAGCTGGCTCTGGTGAGCTTCCATACATCCCTCAAGGATGCTGAGT	1072	XX
Qy	1141	TCAATCCTCACTGGCTACTGCAAGGGCAAGTGCACCAAGCTGGCACTG-----	1191	XX
Db	1073	TCCAGTGTAGGGTCACTCTGGCTCTGAAGGCTCTGAGTCTGGCTGAGT	1132	XX
Qy	1192	CCTCCGGATCCACATCTGGCTCTGAAGGCTACACACTGACTGGAAANGTGG	1251	XX
Db	1133	CAAGTGGAAATTCTGGTGTCTGCTCACCTGGCTGAGGCACTCA	1192	XX
Qy	1252	TCACTGCTGGCTGGAGTCGGAGTCTGGAGATCGTAAAGGAGTCA	1311	XX
Db	1193	GGCTGGTCAATTTCGAAAGGAAGAAATTACTCTGGCTATGATGATGTTG	1252	XX
Qy	1312	GCCCTCACTTCAGGAGATCGGATCTGGCTCTGAAGAAGTCTGGCTCATCGGGAGATG	1371	XX
Db	1253	ACTTCATTTCCAGGATTCAGGTTCACTCTGGCTCTGAAGAAGTCTGGCTGAGT	1312	XX
Db	1372	TGCTCATCTCCTGCACGATGAGTCTGGCTCTGGCTGAGT	1431	XX
Db	1313	ACCTTAATTCTGAGTGTGCTCACACAGAAAGATAGAGCTGAGT	1372	XX
Qy	1432	TGGGATCTGGAGGATGTTGTCACACTGGCTGAGTACTACCTACCC	1417	XX
Db	1373	TAAGCACCAAGGAGTGAATGTCCTCTCATACCTCTTATTACCC	1418	XX

PR 24-FEB-2000; 2001WO-US04914.
 PR 01-MAR-2000; 2001WO-US05004.
 PR 02-MAR-2000; 2001WO-US05601.
 PR 02-MAR-2000; 2001WO-US05746.
 PR 10-MAR-2000; 2001WO-US05841.
 PR 15-MAR-2000; 2001WO-US06319.
 PR 20-MAR-2000; 2001WO-US06884.
 PR 21-MAR-2000; 2001WO-US07377.
 PR 30-MAR-2000; 2001WO-US08432.
 PR 17-MAY-2000; 2001WO-US13705.
 PR 22-MAY-2000; 2001WO-US14042.
 PR 30-MAY-2000; 2001WO-US14941.
 PR 02-JUN-2000; 2001WO-US15264.
 PR 28-JUL-2000; 2001WO-US07010.
 PR 11-AUG-2000; 2001WO-US20311.
 PR 23-AUG-2000; 2001WO-US20328.
 PR 24-AUG-2000; 2001WO-US23328.
 PR 08-NOV-2000; 2001WO-US10952.
 PR 10-NOV-2000; 2001WO-US30873.
 PR 01-DEC-2000; 2001WO-US32678.
 PR 20-DEC-2000; 2001WO-US34956.
 PR 28-FEB-2001; 2001WO-US06520.
 PR 01-MAR-2001; 2001WO-US06666.
 PR 01-JUN-2001; 2001WO-US17092.
 PR 20-JUN-2001; 2001WO-US17800.
 PR 22-JUN-2001; 2001WO-US19692.
 PR 29-JUN-2001; 2001WO-US20116.
 PR 09-JUL-2001; 2001WO-US21735.
 PR 28-FEB-2001; 2001US-0742559.
 PR 09-MAR-2001; 2001US-0802706.
 PR 14-MAR-2001; 2001US-0806891.
 PR 22-MAR-2001; 2001US-0816744.
 PR 05-APR-2001; 2001US-0828366.
 PR 10-MAY-2001; 2001US-0854208.
 PR 18-MAY-2001; 2001US-0860216.
 PR 25-MAY-2001; 2001US-0866038.
 PR 01-JUN-2001; 2001US-0872035.
 PR 05-JUN-2001; 2001US-0874501.
 PR 14-JUN-2001; 2001US-0882616.
 PR 19-JUN-2001; 2001US-0886342.
 PR 21-JUN-2001; 2001US-0887379.
 PR 18-JUL-2001; 2001US-0908827.
 PR 06-AUG-2001; 2001US-0924419.
 PR 09-AUG-2001; 2001US-0927796.
 PR 16-AUG-2001; 2001US-0931833.
 PR 19-DEC-2001; 2001US-0028072.
 XX (GETH) GENENTECH INC.

XX Baker KP, Beresini M, DeForge L, Desnoyers L, Filvaroff E, Gao W, Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S, Smith V, Stewart TA, Tumans D, Watanabe CK, Wood WI, Zhang Z; WPI: 2003-331925/31. DR P-PSDB; ABU66940.

XX New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer -

XX Claim 2: Fig 189; 659pp; English.

XX The invention relates to an isolated nucleic acid comprising, or which is at least 80% identical to, or the full-length coding sequence of, any of the 275 nucleotide sequences, encoding the corresponding PRO polypeptide (one of 275 secreted or transmembrane proteins). The nucleic acid further comprises the full-length coding sequence of the DNA deposited

CC under American Type Culture Collection (ATCC) accession number in a list given in the specification. Also included are vectors and host cells for producing PRO proteins, PRO fusion proteins, anti-PRO antibodies, PRO extracellular domains and mature sequences, methods of detecting PRO proteins, methods for stimulating the release of TNF-alpha (tumour necrosis factor alpha) from human blood, (and the proliferation of differentiation of chondrocyte cells, the proliferation of, or gene expression in pericyte cells, the release or proteoglycans from cartilage, proliferation of inner ear articular supporting cells, the proliferation of T-lymphocyte cells, the release of a cytokine from peripheral blood mononuclear cells (PBMC), or the proliferation of endothelial cells), a method for modulating the uptake of glucose or free fatty acid (FFA) by skeletal muscle cells, a method for inhibiting the binding of A-peptide to factor VIIA, or the differentiation of adipocyte cells, a method for detecting the presence of a tumour in a mammal and an oligonucleotide probe derived from any of the nucleotide sequences cited above. The nucleic acids and polypeptides are useful for treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature ageing, AIDS (acquired immunodeficiency syndrome), cancer, or diabetic complications. The nucleic acids are useful as hybridisation probes, in chromosome and gene mapping, and in generating antisense RNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, bioensors or bioreactors. Both are useful in tissue typing.

CC The present sequence encodes a PRO protein of the invention.

CC Sequence 2150 BP; 586 A; 496 C; 499 G; 569 T; 0 other;

CC Query Match 5.4%; Score 146.8; DB 25; Length 2150; Best Local Similarity 47.3%; Pred. No. 3.2e-22; Matches 618; Conservative 0; Mismatches 667; Indels 21; Gaps 5;

CC Qy 187 GCTACACCCGGAGCCATCCATTTCAGCTCTGGGAGGCTCAAGGTGGCTCC 246
 CC Db 119 GCTGGAGCCAGCGGGCGAGCCATGCCCTTCGCTCCAGTGGCACTGAGGTACG 178
 CC Qy 247 TG --TTTGGGATGTTCCACCTGGGAGCTTGAGAACGAGATCTGTGGTGTCTGGGA 303
 CC Db 179 TGGGCTTGGGTTCTGCCCTGGGCGGCACTGGGCTGGCCGACATGTGGGGGGG 238
 CC Qy 304 CCCATGGGAGACA-TGCCCATTATTGCGCGAGCCTGGCTGGAGCTGGATCACC 363
 CC Db 239 TGCCCCACGGGGGCGCTTACCTCCAGGATTATTTCACAAATGCAAAATGAGTGGAAAA 298
 CC Qy 364 TGGATCCCCAGCAGGAACTACAGCTGCTGGAGGGTGGAGGAGCTCCCTGACCC 423
 CC Db 299 AAGATGTCAGAAGATTACCATCTGAATAATGCCCCACACACATAAA 358
 CC Qy 424 TCGTTTCAAGAGGCCCTTGGCACCTGGGAGCAGCCAGGATTAACCTCATGAAAGGCCA 483
 CC Db 359 TGAATTACCGAGGAGCTGACATGTGACATAATGACAAGGATAAACGGATAGCA 418
 CC Qy 484 CNGTCACCTGGTCACTGGGATCCTGGAGGCCATCAAGTGGAGGCTTCAGATCCAGATCCACG 543
 CC Db 419 CTGTGAGAGTGTCTGGCTTACACATGAGATGTCAGCTGGTGTCCAGTACCT 578
 CC Qy 544 GCTGGCCCTGCGAGTGGGTGAGGGTGCAGCTCCCTGAAAGCCAAATATCCCGAAC 603
 CC Db 479 --ATGACTCCAATAGGGACCACTGGCTTACATGACATAATGAACTGGAAAC- --TA 532
 CC Qy 604 CGGAGTTGCCCCCTGAGCGCCTGCACTGGGCAATGGGCCATCCAAATCCAGATCCAGATCCACGAC 723
 CC Db 533 GTGTGCTATCTACGGCTTACCATTTGATCTGTAATCAGGTCCTCCAGAAAGACATC 652
 CC Qy 724 ACATPATCAGTACGAGGCCATCCTGCAAGTGGCTTCTGTCAGATCCACCATG 783
 CC Db 653 ACAAGATAACATATTTGGTGCACAAATGTTAGATTCCTGTTCCAGAAAGACATC 712
 CC Qy 784 AAGTCTTCCAGTGGCCCCCGA--GATGAGACAGGGTCCCTGAGGGCCCTGCG 840

Claim 2: Fig 189; 659pp; English

The invention describes an isolated human PRO polypeptide. The PRO polypeptides are useful in detecting PRO polypeptides in a sample, in linking a biactive molecule to a cell expressing a PRO polypeptide, and in modulating at least one biological activity of a cell expressing a PRO polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186 stimulate adrenal cortical endothelial growth, and PRO536, PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, PRO1126, PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus useful for treating conditions or disorders where angiogenesis would be beneficial, e.g. wound healing and antagonist of this polypeptide are useful for treating cancerous tumours. PRO812 inhibits vascular endothelial growth factor (VEGF) stimulated proliferation of endothelial cells and is thus useful for inhibiting endothelial cell growth in mammals which would be beneficial in inhibiting tumour growth. PRO826, PRO1068, PRO1346 and PRO1375 stimulate proliferation of immunomodulatory T-lymphocytes and are therapeutically useful for enhancing immune response. PRO828, PRO826, PRO1068 or PRO1132 enhance survival of retinal neurons cells (PRO1132 is also enhances survival/proliferation of rod photoreceptor cells) and therefore are useful for treating retinal disorders of injuries, e.g. retinitis pigmentosum, AMD, PRO819, PRO813, PRO1166 induce proliferation of mammalian kidney mesangial cells, and therefore are useful for treating kidney disorders associated with decreased mesangial cell function such as Berger disease or other nephropathies associated with dermatitis, herpetiformis or Crohn's disease. PRO1310, PRO844, PRO112, PRO119 and PRO1387 induce the

Qy	1141	TCATCCTOACTGGCTACTGGCACAAAGTGCACCCGGCTGGCACTNG-----CCTC	1191	XX	DR	WPI: 2001-425874/45.
Db	1073	TCCAGTCTGAGGTCAGTGCACCTTGGACTCTGGACTCTGGAAAGGCTCTGGAAAGC	1132	XX	DR	P-PSD; AAE05187.
Qy	1192	CCTCCGGATCCACATCTCGCCTCTAGCTCACACACCTGAAAGTGG	1251	XX	PT	Drug metabolizing enzymes and encoding polynucleotides, useful for diagnosing, treating and/or preventing autoimmune, inflammatory, cell proliferative, developmental, endocrine, eye, metabolic, and gastrointestinal disorders -
Db	1133	CAAGTGGAAATTCATGTTGTCCTCCATGTCACCTGGCTGGCAGGGATCA	1192	XX	PT	Claim 5; Page 168-169; 133pp; English.
Qy	12542	TGACAGTGCTGGTCCGGGAGACGGAGATGTAACCCATCA	1311	XX	PS	Claim 5; Page 168-169; 133pp; English.
Db	1193	GGCTGCCTATTTGAAAGGAAGAAATTAATGTCATGATGATTG	1252	XX	CC	The present sequence is human drug metabolising enzyme (DME-18) cDNA.
Qy	1312	GGCCCTACCTCCAGGAGATCCGCATGTTGAGAAGGTCGTCGGACATCGGGAGATG	1371	XX	CC	Human DME and its nucleic acid molecule are useful for the diagnosis, treatment and prevention of disorders associated with increased or decreased expression of DME. Examples of such disorders include,
Db	1253	ACTTCATTTCCAGGACTTCAGATTAAAGAACAACTCTTACAGGAGATA	1312	XX	CC	autoimmune/inflammatory disorder such as acquired immune deficiency syndrome (AIDS), rheumatoid arthritis, osteoporosis; cell proliferative disorder such as acinic keratosis, atherosclerosis; developmental disorder such as epilepsy, anaemia; endocrine disorder such as acromegaly, cretinism, thyrotoxicosis; pancreatic disorder such as diabetes mellitus; eye disorder such as conjunctivitis, glaucoma, iritis;
Qy	1372	TGCTCATACCTCTGCACTACACAGGAGACCGGACTGTGGCAACTGGGGCT	1431	XX	CC	metabolic disorder such as Addison's disease, obesity, gastrointestinal disorder such as anorexia, dysphagia and hepatic tumors including nodular hyperplasia, adenomas and carcinomas. DME DNA is useful for creating 'knockin' humanised animals (pigs) or transgenic animals (mice or rats) to model human disease. DME DNA is also in useful in gene therapy. DME and its immunogenic fragments are useful for screening CC libraries of compounds in several drug screening assays.
Db	1313	ACCTAAATTACTGAGTGCTGCTACAGAACAGAAAGATAGAGCTGGAGAC	1372	XX	CC	XX
Qy	1432	TGGGGATCTGGAGGAGATGTTGCAACTGTACTACCC	1477	XX	SQ	Sequence 2982 BP; 798 A; 652 G; 875 T; 0 other;
Db	1373	TAAGGCCACAGGAGTGAATGTCCTCATACCTCTTATTACCC	1418	XX	SQ	Query Match 5.4%; Score 146.8%; DB 22; Length 2982; Best Local Similarity 47.3%; Pred. No. 3.5e-22; Mismatches 667; Indels 21; Gaps 5; Matches 618; Conservative 0; MisMatches 667; Indels 21; Gaps 5;
RESULT 26				Qy	187	GCTAACCCAGGGCATCCATTTCAGCTCCCTGGAGGCTCAAGGCTGGCGTC
ID AAD09953	standard	CDNA; 2982 BP.		Db	151	GCTGGAGGCCAGGGCAGGAGATGCTGGCTCCAGTGGACTGAGGTACG
XX				Qy	247	TG---TTTGGATCTGGACGAGATCTGGAGCTGGCTGGCTGGAA
AC				Db	211	TGGGCTCGGTTCTGCCACGGGCGATGGCTCCGGGACTCTGGGGGG
AAD09953;				Qy	304	CGCAGGGACACTGCCTATTGGGACCCCTGGAGTGCAGAGGGCGATCACC
XX				Db	271	TGGCCACGGCCCTACTCCGGATTATTACAATGCAATAATGAGATGAAAA
DT 12-SEP-2001	(first entry)			Qy	364	TGGATCCCAGGAGACTACAGCTGGCTGAGGTGAGGGCCAGGCTGACCC
DE				Db	331	AAGATGCTCAGAAGTACCATCTAGAAATATGCAATGAAATGACACACATCAA
XX				Qy	424	TGCTTTACGAGGCTCTGGACCTGCACCCAGGATTACCTCATGAAAGGGCA
XX				Db	391	TGAAATTACGAGGCTCATACATGTCAGAATGAAATGAAATGAAATGAA
Human drug metabolising enzyme (DME-18) cDNA.				Qy	484	CTGTCACCTGGTCAAGGGATCTGGCTTCCGGTCACTGGAGGCCATCAACG
KW				Db	451	CTGTCAGAGTCTGGCTTACCCACATGAGTCAGGAAAGCTGGCTCCAGTAC
Human; drug metabolising enzyme; DME-18; immunosuppressive; gene therapy; cytostatic; autoimmune disorder; inflammatory disorder; atherosclerosis; osteoporosis; eye disorder; hepatic tumour; Addison's disease; cretinism; rheumatoid arthritis; acquired immune deficiency syndrome; AIDS; anaemia; developmental disorder; endocrine disorder; iritis; acromegaly; epilepsy; thyrotoxicosis; pancreatic disorder; diabetes mellitus; obesity; adenoma; gastrointestinal disorder; nodular hyperplasia; conjunctivitis; glaucoma; acinaric keratosis; metabolic disorder; dysphagia; anorexia; carcinoma; cell proliferative disorder; ss.				Qy	544	GCTCGGGCTGAGGTGAGGGCTGAGGTGAGGTGAGGTGAGGTGAGGTGAG
OS Homo sapiens.				Db	511	--ATGACTCCATGGGGACCACTTGGTTATGAACTCTGAAATGAAAC--TA
XX				Qy	604	CGGAGGACGACGACTGACTGGTCAAGCTGGCTTCAAGATCCAGATCCC
Key	FT	Location/Qualifiers		Db	625	ACAAGATACACATATTGGTGCCTAACATGTTAGATTCTGTGTCCAGAAAGGCATC
CD5	3.3..1874			Qy	664	GGCAGAGACGACGACTGACTGGTCAAGCTGGCTTCAAGATCCAGATCCC
PT	/*tag= a			Db	626	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PT	3.3..86			Qy	665	GTGTGCTTATACACCCATTACCATATGAACTGAAATGAAATGAAATGAA
PT	/*tag= b			Db	627	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PT	87..1871			Qy	666	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PT	/*tag= c			Db	628	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PT	/product= "Human drug metabolising enzyme (DME-18)"			Qy	667	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PT	WO200151638-A2.			Db	629	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
PN				Qy	630	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
14-JAN-2001.				Db	631	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
21-JAN-2001.				Qy	632	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
28-JAN-2001.				Db	633	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
XX				Qy	634	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
(INCYT) INCYTE GENOMICS INC.				Db	635	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
XX				Qy	636	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
Yang J, Baughn MR, Burford N, Au-Young J, Lu DAM, Reddy R;				Db	637	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
Ring HZ, Hillman JL, Yue H, Azimza Y, Yao MG, Gandhi AR;				Qy	638	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
Nguyen DB, Tang YT, Lai P, Bandman O;				Db	639	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC
724				Qy	640	ACAATPATCAAGTACGAGGCCATGTACCTGGCTTCAAGATCCAGATCCC

Db	685	ATGTAATAACGGTGGCCAGTGTACAGAGGGCCATAGAGAGGGCTCTGGTGCACCATCC	744	XX	PA	(GERO-) GERON CORP.
Qy	784	AAAGTCCTCCAGTGGCCGCCCA---GATGAGCACGGTCCCAATTGAGGGCCCTTCG	840	XX	PA	
Db	745	TGCTCTATCATGTCAGCAACATTAACAGCGTTCGTTGGTCCGGCACGAGTCT	804	PI	Punk W;	
Qy	841	ACTCCRAAGATGAAACCCGACGCCCTCAACTACTGCCAACGAGTCGGCTGGCCC	900	XX	WPI: 1999-347496/29.	
Db	805	ATCCCCAACATGCCGATGCATTCACCTGTAACTGTGTTGCTGGCTGAGCT	864	DR	P-PSDB; AAY21556.	
Qy	901	TGGTGGCAGGATTTATACCCAGAGGAAGCCGGCTTGCCTGGGGTCCAGGT	960	XX	New human GC6 gene, useful for identifying agents for treating	
Db	865	TGGTGGAGGGCTTTCTTATCACCTCATGTTGGTATCCCTGGCATCTATTAG	924	XX	diseases and/or conditions associated with cell senescence	
Qy	961	CCTCCAGATATCTGGCTGGAAAGTTCAACTACCAACCCATGGTATAGAGGAA	1020	XX	Claim 2; Page 18; 79pp; English.	
Db	925	ATCCGGCATTTATGTCCTCTAGTCCTAGAATCCACTTATGAGGAGGCTTAA	984	CC	The invention relates to methods for modulating and identifying cellular	
Qy	1021	ACGACTCTCAGGATCCGGATTCGGCTTGTACTACACAGCCAACTGGGGGA	1080	CC	senescence. Recombinant expression vectors comprising a recombinant	
Db	985	TAGATAATCTGGACTGGGTATTTCACATGGTATAGGAAATATGATGTCGGG	1044	CC	polynucleotide corresponding to a polynucleotide in a human GC6 gene, are	
Qy	1081	TCATGGAGCTGGAACTGGTGTAAAGCAGGAAATTCACACAGGAAAGCCCT	1140	CC	useful for altering senescent gene expression. The vectors and host cells	
Db	1045	TGATTGAACTCTGGCTCTGGGTGAGCTCCATACATCTCCAGGATGCTGAT	1104	CC	comprising the vectors are useful for identifying agents that prevent or	
Qy	1141	TCATCCTCACTGGCTACAGCAACGTCAGCTGGCCACTG------CCTC	1191	CC	modulating senescent gene expression. The polynucleotides are useful for	
Db	1105	TCCAGTCAGGGTCACGGCACTTGGAGTGTGGCTGAGGCTCTGGAGCGAAAGC	1164	CC	producing the protein, PGc6 and nucleic acid derivatives. The proteins	
Qy	1192	CCTCGGGATCCACATCTTCGCTCTCGCTCACACACCTGACTGGGAAAGTGG	1251	CC	encoded are useful for raising antibodies specific for PGc6 which are	
Db	1165	CAAGTGGATTCTGTTGTTGTTCTCATGTCACCTGGTGGAGGCACTCA	1224	CC	useful for isolating PGc6 and for detecting cells comprising PGc6 in	
Qy	1252	TCACAGTCCTCGGTCGGGACGGGAGTCGTCAACCGGACATCTACATA	1311	CC	complex cell mixtures. The characterization of the polynucleotides enable	
Db	1225	GGTGCGTCATTTTCGAAAGGGAAAGAAATGAAATTCTGCGCTPATGATGATT	1284	CC	the identification of therapeutic agents that identify and distinguish	
Qy	1312	GCCTCACTTCCAGGAGATCCGATGTTGAGAAAGTCGTCACTCGGGAGATG	1371	CC	between young and senescent cells. This enables treatment of aging	
Db	1285	ACTCTAAATTCCAGGACTTCAGTATCAAGGAAGAACAAACATCTACCT	1344	CC	diseases induced or exacerbated by cellular senescence.	
Qy	1372	TGCTCATOACCTCTGCACTGACGAAACGGGAGCTGGCAAGTGGGGCCT	1431	XX	Sequence 1635 BP; 475 A; 355 C; 355 G; 450 T; 0 other;	
Db	1345	ACCTTAATTACTGAGTCGTGCTGCAACAGAACATGAGTGTGGAGGAGC	1404	XX	Query Match 5.2%; Score 141.8; DB 20; Length 1635;	
Qy	1432	TGGGATCTGGAGGAGTGTGTCAACTACAGTCACATACCC	1477	Db	Best Local Similarity 49.6%; Pred. No. 3.7e-21;	
Db	1405	TAAGCACCAAGGAGTGAATGTGTCTCTCATACCTCTTATTACCC	1450	Db	Matches 427; Conservative 0; Mismatches 422; Indels 12; Gaps 2;	
Qy	1477	RESULT 27		Qy	629 CATGGAGCTCAAGCTCCAAATCCAGATTCGGACCACTATTCAATGAGCCCTATCGT	748
Db	1450	AAX77115 standard; DNA; 1635 BP.		Db	414 AATGTTTAAGATTCCTGTTCAAGAAAAGATCTGTAAATAAAGCTGTTGCACTGAT 473	
Qy	1450	GC6 gene ORF sequence.		Db	354 CTTGATCTGGTAATTCTGGGCTCCATCCAAATAAGATACACATATTGGGCCA 413	
Db	1450	Cellular senescence; modulator; GC6 gene; senescent gene expression;		Qy	689 CATTAAAGGAGCTTCAAAAGGGCTTCCTGGCACCACTATTCAATGAGCCCTATCGT	748
Qy	1450	PGc6; human; ss.		Db	414 CTTGATCTGGTAATTCTGGGCTCCATCCAAATAAGATACACATATTGGGCCA 413	
Db	1450	03-AUG-1999 (first entry)		Qy	749 CACCAAGGCAATGGGCCCTGTCCACACATGGAGTCTCCACTGCGCCCCA---	805
Qy	1450	XX		Db	474 ACAGAGGCCATGAGCTCTGGCACCACTCTGCTCTATGACCACTACGCAACAACTT	533
Db	1450	XX		Qy	806 GATGGAGCAGGCCTCCACCTGAGCTGGCCACTGAGTAAACCGGACGCC	865
Db	1450	XX		Db	534 TAACGACAGCGCTCTGGAGTCGGCAGACTGCPATCATCCCAACATGCCGATCATT	593
Qy	1450	XX		Qy	866 CACACTATGCCCACTGGCCCTGGCCAGGCTTCAAGGCAATTCTACACCC	925
Db	1450	XX		Db	594 CCTCACCTGTGAAACCTGATTGTTTCCTGGCTATGGTGAAGGGCTTCTATCC	653
Qy	1450	XX		Qy	926 AGAGGAGCCGGCTTCGGGCTCCTCCAGATATCTCGCCCTGAGAAGT	985
Db	1450	XX		Db	714 CCATTGATATCCACTATGAGGAAAGCTTATGAGTGGACTGAGCTT	773
Qy	1450	XX		Qy	1046 CTACACAGCCAAAGCTGGCCATTCCACAGGGGATCATGGAGTGGACTGGTACAC	1105
Db	1450	XX		Db	774 TTACACATGGATATAGGAAATATGAGTGGCTGAGTGGACTGAGCTT	
Qy	1450	XX		Qy	1106 GCCAGCTGATGGCCATTCCACAGGGAGCCCTTATCTCCACTGCTGAGCTGAC	833
Db	1450	XX		Db	834 CCTCTTCATACCCTCCAGGATGCTGAGTCCAGTGGACTGAGCTT	1165
Qy	1450	XX		Db	1166 CAAGTGACCAAGGCTGGCTTCACATCTGGCTGAGTGGACTGAGCTT	893
Db	1450	XX		Db	894 GGAGTCCTCGGAAGAGGCTGGAGGAAAAGCCAACTGGATTCTGGCTG	953

KW	Human; full length cDNA; cDNA synthesis; oligo-capping; ss.	QY	1046 CTACACGCCAAGCTGGGGCTTCACGGGGGATCATGGGTGGACTGGTACAC 1105
OS	Homo sapiens.	DB	801 TTACACATGGATAAGGAAATATGATGTGGGTGATGGCTCNGGTGAG 860
XX		QY	1106 GCCAGTGATGCCATTCACACGGAGAACGGCTTCATCCTCACTGGTACTCACCGGA 1165
PN	EP1130094-A2.	DB	861 CCTCTCCATACCATCCCTCAGGATGCTGAATTCAGGGTCAAGGTGACTGACTFT 920
XX		QY	1166 CAAGTGACCCAGCTGGCACTGCCCTC-----TCGGGATCCACATCTGCCCTC 1216
PD	05-SEP-2001.	DB	921 GGAGTGCCTGGAAGGGCTCTGGAAAGCCAAAGCAGTGGATCTGGTGTGCTGCT 980
XX		QY	1217 TCAAGTCCAACACCTGACTGGGAGAAAGGTGTCACAGTGTGGTCTGGGACGCCG 1276
PF	07-JUL-2000; 2000EP-0114089.	DB	981 TCTTCTCCATGCTTCCTGGTGAAGGCACTGGGTGCTCATTTGAAAGGAA 1040
XX		QY	1277 GGAGTGGGAGATCGTGAACAGGACAACTACACTAGCCTCACTTCCAGGAGATCGCAT 1336
PR	08-JUL-1999; 90JP-0194486.	DB	1041 GGAATGAAATTACTGCTCATGATGATGATTGACTCAATTCCAGAGTTTGTATA 1100
XX		QY	1337 GTTGGAGAAGGTGCTGTCGGCATCCGGAGATGTGCTCATACCTCTGACGTACAA 1396
PI	Wakanatsu A, Sugiyama T, Nagai K, Kojima S, Otsuki T, Koga H;	DB	1101 TCTAAAGGAGAAACAACATCTTACAGGATAAACTTAATTACTGATGTCGCTCAA 1160
XX		QY	1397 CACGGAAACCGGGCTGGCCACAGTGGGCTCTGGGATGAGATGACTGGGAGATGTGT 1456
PS	SEQ ID NO 2985; 1380pp + sequence listing; English.	DB	1161 CACAAAGATAGCTGAGATGACTGGGAGGACATAAGCACCAGGAAATGAATGTC 1220
XX		QY	1457 CAACTACGTGCACTACATAC 1477
DR	WPI: 2001-524255/58.	DB	1221 CTCATACCTCTTATTAACCC 1241
XX		RESULT 30	
PT	830 Primers useful for synthesizing full length cDNA clones and their	DT	03-AUG-1999 (first entry)
XX	use in genetic manipulation -	XX	
PT		DE	DNA sequence of GC6 gene.
XX		XX	Cellular senescence; modulator; GC6 gene; senescent gene expression;
PS	Claim 8; SEQ ID NO 2985; 1380pp + sequence listing; English.	XX	PGC6; human; ss.
XX		XX	Homo sapiens.
CC	The invention relates to primers for synthesising full length cDNA	OS	
CC	clones. 830 cDNA molecules encoding a human protein have been	XX	
CC	isolated and nucleotide sequences of 5'- and 3'-ends of the cDNA	OS	
CC	molecules have been determined. Primers for synthesising the full length	XX	
CC	cDNA are useful for clarifying the function of the protein encoded by	OS	
CC	the cDNA. The full length clones were obtained by construction of full	XX	
CC	length enriched cDNA libraries that were synthesised by the oligo-capping	OS	
CC	method. The primers enable the production of the full length cDNA easily	XX	
CC	without any special methods. The present sequence is a full length	OS	
CC	human cDNA of the invention.	XX	
CC	Note: The sequence data for this patent did not form part of the printed	OS	
CC	specification, but was obtained in CD-ROM format directly from EPO.	XX	
XX		XX	
QQ	Sequence 2762 BP; 760 A; 586 C; 569 G; 847 T; 0 other;	XX	
Query Match	5.2%; Score 141.8; DB 22; Length 2762;	DT	
Best Local Similarity	49.6%; Pred. No. 4.2e-21;	XX	
Matches 427; Conservative 0; Mismatches 422; Indels 12; Gaps 2;		DE	
DB	629 CATTGGAGTCCAGCTCCAAATATCCAGATCCACGGAGACCGTACTGGCTA 688	XX	
DB	381 CTTTGATCTGGTAAATCGGAGTCCCATCCAAACAAAGATAAACATATTGGCTCA 440	XX	
QY	689 CATTAAAGGAGTCCAAAGGGCTCTCTCGCACCACATTAAGTAGAGCCCATCT 748	XX	
DB	441 AATGTTAAAGATTCTGTGTCAGAAAGCATATGTAATAAGGTGAGCTGAT 500	XX	
QY	749 CACCAAGGGCAATGAGGCCCTTGTCCACACATGGAAAGCTTCCAGTGGCCCGA - 805	XX	
DB	501 ACAGAGAGGCCATGAGATCTGGCACACATCTGCTCATAGTCAGCAACACTT 560	XX	
QY	806 GATGGCAGCTCCCCAACCTTCAGGGGCTGGGACTCAATGAAACCTCTGGCT 865	XX	
DB	561 TAACGAGCAGCTTCAGGATCTGGCACAGGTGTATCACCCCAACATGGCTATGGT 620	XX	
QY	866 CAACTACTCGGCCACGCTGGCTGGGGCTGGGACTCAATGAACTTACTACCC 925	XX	
DB	621 CCTCACCTGTGAAACTGTGATTTGCTGGGCTATGGAGGGCTTCTATCC 680	XX	
QY	926 AGAGGAAGGGCCCTTGTGCACTGGCTGCAAGCTCCCTGAGATTCCTGGCTGGAACT 1045	XX	
DB	681 ACCTGATGTGGATTATCCTTGGCACCTAGATCCGCACTTGTGCTCTAGAAT 740	XX	
QY	986 TCACTACCAAAACCAACTGTGATAGGACAAACGACTCTCGGCACTGGCTTCTAT 800	XX	
DB	741 CCATATTGATAATCCCACTTATGAGGAGCTTAATGATAATTCTGGCTGAGTTAT 800	XX	
DR	DR; 1999-347496/29.	PT	New human GC6 gene, useful for identifying agents for treating
XX		PT	diseases and/or conditions associated with cell senescence
Pi	Pi; AAY21556.	XX	
Punk W;		PS	Claim 1; Page 15-17; 79pp; English.
DR	DR; 1999-347496/29.	CC	The invention relates to methods for modulating and identifying cellular
XX		CC	senescence. Recombinant expression vectors comprising a recombinant
PR	PR; 19-Nov-1997; 97US-0974180.	CC	polynucleotide corresponding to a polynucleotide in a human GC6 gene, are
XX		CC	useful for altering senescent gene expression. The vectors and host cells

comprising the vectors are useful for identifying agents that prevent or modulate senescent gene expression. The polymucleotides are useful for producing the protein, pGC6 and nucleic acid derivatives. The proteins encoded are useful for raising antibodies specific for pGC6, which are useful for isolating pGC6, and for detecting cells comprising pGC6 in complex cell mixtures. The characterization of the polymucleotides enable the identification of therapeutic agents that identify and distinguish between young and senescent cells. This enables treatment of aging diseases induced or exacerbated by cellular senescence.

SQ	Sequence 2970 BP; 829 A; 623 C; 586 G; 931 T; 1 other;	Db	1424 CTCAACCTCTTATTACCC 1444
Query Match 5.2%; Score 14.1%; DB 20; Length 2970;	Db	1424 CTCAACCTCTTATTACCC 1444	
Best Local Similarity 49.6%; Pred. No. 4.3e-21;	Db	1424 CTCAACCTCTTATTACCC 1444	
Matches 427; Conservative 0; Mismatches 422; Indels 12; Gaps 2;	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 629 CATGGGGTCCAAAGCTCCAAATATCCAGATGCCAGCAGGACCTACTGGTGTAA 688	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 584 CTTTGATCTGGTAAATCTGGATGCCCATCCAAACAAAGATACAACTATGGTGTCCA 643	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 689 CATTAGGGAGCTCCAAAGGGTTCTCGGACACATPATCAAGTCAAGGCCCATCGT 748	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 644 AATGTTTAAGTTCAGTCCAGAACATCATGTATAAAGTGTAGCCAGTGTAT 703	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 749 CACCAAGGGCATGAGGCCCTGTGTCACACATGGAAAGTCTCCACTGGCCCCCGA--- 805	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 704 ACAGAGAGGCCATGAGAGCTGGTACACATCCCTGTATCATGAGCAACAT 763	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 806 GATGGACAGCGCTCCCCACTCTAGCGGGCTCTGGCACTCCAAAGTAAACCGACGCCCT 865	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 764 TAACGACAGCGCTCTGGATCTGGCTGCAAGCTGPTATACCCCCAACATGCCGTGCAAT 823	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 866 CAACTACTGCCCAAGTGTCTGGCCCTGGCCCTGGTGTGCGTCAAGGATTTACTACCC 925	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 824 CCTCACCTGTGAAACTGTGATTITGCTGGCTATTGGTGGAGAGGGCTTCTTATCC 883	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 926 AGAGGAAGCGGSCCTTGCCTGGGTCTCCAGATATCTCCGCTCGAAGT 985	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 884 ACCTCATGTGGTGGATATTCCTTGCACTCATTTAGTCGGATTATGGTGTAGAATG 943	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 986 TCACTACACAAACCCACTGGTGTATAAGAGGAGAAACGACTCTAGGCATCCGCTTGTAA 1045	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 944 CCATTATGATAATCCACATTGAGGAAGGCTTAATAGATAATTCTGGTGTAGETTATT 1003	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1046 CTACACAGGCCAGTGGCCCTCAAGCGGGGATCATGGCTGGATGTGTACAC 1105	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1004 TTACACAATGGATATAAGGAATAATATGATGTTGGGTGATAGGGCTGGCTCTGGTGTAG 1063	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1106 GCCAGTGTGGCCATTCCACCGGGAGACGGCTACTGGACTGACGGAA 1165	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1064 CCTCTTCATACCATCCCTCAGGGATGCTGAGTCAGTCAGGGTACTGACTT 1123	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1166 CAAGTGCAACCCAGCTGGCACTGCTCCCTCCCTCGCCRC 1216	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1124 GGAGTGCTCTGAAAGGGCTCTGGAAAGCCGAAAGGCAATGTCGTGTCTG 1183	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1211 TCACTCTCACACACCTGACTGGGAAAGGTGTCAAGTGTGGCTGGCGCG 1276	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1184 TCTCTCTCCATGCTCACCTGGTGGCAAGGGCATAGGTGTGCTGTTGG 1243	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1277 GGAGTGGAGATCGTGAACCGGACATCACTACGGAAAGGTGTCAAGTGTGGCTGG 1336	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1244 GGAAATGAAATTACTTGCTATGTGATGATTGACTGAATTCGGAGTTCAGTA 1303	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1337 GTTGAAGAAGTGTGCTGGTCCATCCGGGAGATGTCATCACCTCTGGCACTACA 1396	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1304 TCTAARGGAAGAACAAACATCTTACCGGAGATAACCTTAATTACTGATGTGCTGCTACA 1363	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1397 CACGGAGACGGGAGCTGGCACAGTGGGGCTGCAATGGAGAGTGTGT 1456	Db	1424 CTCAACCTCTTATTACCC 1444	
Db 1364 CACGAAAGATAGAGTGTGAGTGGAGGACTAAGCACCAGGAGTAATGTGTCT 1423	Db	1424 CTCAACCTCTTATTACCC 1444	
Qy 1457 CAACTACTGTGGACTACTACCC 1477	Db	1424 CTCAACCTCTTATTACCC 1444	

expressed in. Examples of the activities are: cytoplastic; immunosuppressive; antiHIV; antiinflammatory; neuroprotective; antiallergic; osteopathic; antiarthritic; antibacterial; antidiabetic; antiasthma; antipsoriatic; and cardiant. The polynucleotides and their corresponding secreted proteins are useful for preventing, treating or ameliorating medical conditions, e.g. by protein or gene therapy. Also pathological conditions can be diagnosed by determining the amount of the proteins in a sample or by determining the presence of mutations in the polynucleotides. Specific uses are described for each of the polynucleotides, based on which tissues they are most highly expressed in, and include: developing products for the diagnosis or treatment of cancer, tumours, neurodegenerative disorders, developmental abnormalities and foetal deficiencies, blood disorders, diseases of the immune system, autoimmune diseases, hepatic and renal disease, inflammation, allergies, Alzheimer's and behavioural disorders, schizophrenia, osteoporosis, arthritis, infections, AIDS, spinal cord injuries, transplant rejection, diabetes, asthma, sepsis, acne, psoriasis, cardiovascular disorders, reproductive disorders, gastrointestinal disorders, respiratory disorders and metabolic disorders. The proteins or polynucleotides can also be used as food additives or preservatives. The proteins are also useful for identifying their binding partners. AAA2337 to AA26345 and AA91450 are sequences used in the exemplification of the present invention.

Sequence 2189 BP; 602 A; 505 C; 509 G; 573 T; 0 other;

Query Match 5.1%; Score 138.4%; DB 21; Length 2189;

Best Local Similarity 46.9%; Pred. No. 2.2e-20; Matches 614; Conservative 0; Mismatches 671; Indels 23; Gaps 5;

Qy	187	GCTACACCCAGGAGGCATCCATTTCAGCCTCCAGCTGGAGCTTCAGCTGGCC 246	Db	144	GCTGAGGCAACCGGGCAGCCAGATGCTCTCCGCTCAGGTCAGCTAG 203	Qy	247	TG---TTTGGGATGTCGCCGGACCGTGTGGAAACGGAGATCTCGTGG 303	Db	204	TGGGCTTCGGCTTCCTGCCAACCCGGCCATGGCTCCGGACATCGTGTGG 263	Qy	304	CCGATGGGACACTGGCTATTGGGAACGGCTGGAGTACCGAGGGCAGATCC 363	Db	264	TGGGCCACGGGCCCCATTCCAGGATATTTCACAAATGCAAAAGAGTGA 323	Qy	364	TGGATGCCACGGGACTTACAGCTGCTGGGTGCAAGAGGACCCAGGGCTG 423	Db	324	AAGATGCTCAGCAAGTACCATGATGCTGAAATATGCAACACAATAA 383	Qy	424	TGCTTTCAAGAGGCCATTGGCACTGGACCCAAAGGATTACCTCATGAAAGCG 483	Db	384	TGAAATTACAGAGGTGATCATGTCACATGGCAATTAATGCAAGAGTAAAG 443	Qy	484	CTGTCACCTGGTGTACGGATCTGGAGCCCTTCGGTCACTGGGCCATCAAG 543	Db	444	CTGTCAGAGTGATCTGGCTTACCACTGGAGATGCAAGGCTGGTCCAGTAC 503	Qy	544	GCTCGGGCCTCAGATGGCTGGAGGGTGCAGCTCTGGAACTATCCGAC 603	Db	504	A---TGACTCCATTGGGACCCAGAAGTTGGCTTATGAAATCTGGAAAAC--TA 557	Qy	604	CGGAGTTGCCCTCAGACGGCCATTGGAGGTCCAAGCTCCAAATATCCAGAT 663	Db	558	GTTGTCCTATCTACGGCTTACCATCTTACCTGTAATCAGGCACTCCCA 617	Qy	664	GCCAGGAGACCACTGACTGGTGTACATTAAGGAGCTTCCAAGGGCTCTGGAC 723	Db	618	ACAAAGATCAACATATTGGCCAAATGTTTAAATTCTGTGTCTGGTCCAGAA 677	Qy	724	ACATATCAGTCAAGCCATGTCAGCTGGGAAATAGGCCCTTGTCACACATG 783	Db	678	ATGTTAAAGGTGCACTGCACTGATAGAGGCAAGGCTAGTCAAGGAG 737	Qy	784	AAGTCTTCAGTGGCCCGAGATGGCAAGCGTCCCCACATTCAGGGGCC----CTG 838	Db	738	TGCTCTATCTGCAAGCAACATTTAAAGCAAGGGTCTGGGATCCGGCACGA 797
----	-----	--	----	-----	--	----	-----	---	----	-----	---	----	-----	--	----	-----	--	----	-----	---	----	-----	--	----	-----	--	----	-----	--	----	-----	--	----	-----	--	----	-----	---	----	-----	---	----	-----	---	----	-----	--	----	-----	--	----	-----	---	----	-----	--	----	-----	--	----	-----	--	----	-----	--

RESULT 3.3

AA159575 standard; cDNA; 1233 BP.

XX

AA159575;

XX

TG---OCT-2001 (first entry)

XX

Human polynucleotide SEQ ID NO 1778.

XX

Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation; leukaemia; SS. Homo sapiens.

XX

WO-0015312-A1.

PR

26-DEC-2000; 2000WO-US34263.

XX

21-JAN-2000; 2000US-0488725.

25-APR-2000; 2000US-0552317.

PR	09-JUL-2000; 2000US-0598042.	Db	424	cACGACCTGGAGTCGAAAGGCCAAGTGGATTCT 483
PR	19-JUL-2000; 2000US-0520312.	Qy	1206	ATCTTCGCTCTCAGTCCACACACCTGACTGGAGAAAGGTGGTCAAGTCCTGGTC 1265
PR	03-AUG-2000; 2000US-065345.	Db	484	GTGTTGCTGTCCTCTCCATGTCACCTGCTGCAGGCCATAGGTGCTCATTT 543
PR	14-SEP-2000; 2000US-066219.	Qy	1266	CGCGAAGGCCGAGTGGAGATCTCACTACAGCCCTCACTCCAG 1325
PR	29-NOV-2000; 2000US-0693016.	Db	544	CGAAAGGGAGGAATGAAATTACTGCTATATGATTTGACTTCATTC 603
XX		Qy	1326	GAGATCCGCAATGTTAAGAGGTCTGTGGTCCATCCGGAGATGGCTCATCACCMCC 1385
PA	(HYSEQ INC.	Db	604	GAGTTCAATATCPAAGGAGAACAAATCTTACCTAAATTCTGAG 663
XX		Qy	1386	TGCAAGTACACCGGAAGACCCGGAGCTGGCCACAGTGGGGCTTCGGATCTGGAG 1445
PI	Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;	Db	664	TGTGCTCATACAGGAAATAGCTAGTGTGAGTAAGCTGGAGATAAGCACCAGAGT 723
PI	Wang Z, Wearman T, Xu C, Xue AJ, Yang Y, Zhang J;	Qy	1446	GAGATGTGTCAACTACCTGCACTACTACCC 1477
XX	Zhao Q, Zhou P, Goodrich R, Drmanac RT;	Db	724	GAATGTGTCTCATACCTCTTATTACCC 755
DR	WPI: 2001-442255/47.	RESULT 34		
DR	P-PSDB; AA040419.	ABL02836		
XX	Novel nucleic acids and polypeptides useful for treating disorders	ID	ABL02836	standard; cDNA; 29263 BP.
PT	such as central nervous system injuries -	XX		
XX	PS	AC	ABL02836;	
XX	Claim 1; SEQ ID NO 1778; 10078pp; English.	XX		
XX	CC	DT	26-MAR-2002 (first entry)	
CC	The invention relates to human nucleic acids (AAI57798-AAI61369) and	XX		
CC	the encoded polypeptides (AAM38612-AAW42213) with nootropic,	DE	Drosophila melanogaster expressed polynucleotide SEQ ID NO 2990.	
CC	immunosuppressant and cytostatic activity. The polynucleotides are useful	XX	Drosophila; developmental biology; cell signalling; insecticide;	
CC	in gene therapy. A composition containing a polypeptide or polynucleotide	XX	KW pharmaceutical; gene; ss.	
CC	of the invention may be used to treat diseases of the peripheral nervous	XX	KW	
CC	system, such as peripheral nervous injuries, peripheral neuropathy and	XX	Drosophila melanogaster.	
CC	localised neuropathies and central nervous system disease, such as	OS		
CC	Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic	XX	XX	
CC	lateral sclerosis, and Shy-Drager Syndrome. Other uses include the	XX	W0200171042-A2.	
CC	utilisation of the activities such as: Immune system suppression,	XX	XX	
CC	Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic	XX	PD 27-SEP-2001.	
CC	and thrombolytic activity, cancer diagnosis and therapy, drug screening,	XX	XX	
CC	assays for receptor activity, arthritis and inflammation, leukaemias and	XX	PR 23-MAR-2001; 2001WO-US09231.	
CC	C.N.S. disorders.	XX	XX	
CC	Note: The sequence data for this patent did not form part of the printed	DE	PR 23-MAR-2000; 2000US-191637P.	
CC	specification.	XX	XX	
XX	Sequence 1233 BP; 333 A; 274 C; 279 G; 347 T; 0 other;	XX	PR 11-JUL-2000; 2000US-0614150.	
SQ	Query Match	XX	PA (PEKE) PE CORP NY.	
	Best Local Similarity	XX	XX	
	4.3%;	XX	XX	
	Matches 371; Conservative 49.3%;	XX	XX	
	Pred. No. 6.3e-16;	XX	XX	
	0; Mismatches 369; Indels 12; Gaps 2;	XX	XX	
Qy	738 GAGCCCATCGTCACCAAGGCCATGAGCCCTTGTCCACCAATGGAATCTTCAGTC 797	XX	XX	
Db	4 GAGCCAGCTGATACAGGAGCCATGAGGTCTGGGCAACATCTGTTATCAGTC 63	XX	XX	
Qy	798 GCGCCCSA--GATGGAGCAGGTCGCCCACTTCACGGGCCCTGGACTCCAGATGAA 854	XX	XX	
Db	64 AGCAAACACTTAAACGAGCTGGTCTGGAGTCGCCACAGAGCTATACCCCCAATC 123	XX	XX	
Qy	855 CCCGACCGCCCAACTACTGCGCACGCTGCGCTGGCCCTGGTGCACAGATCTC 914	XX	XX	
Db	124 CCCGATGCACTTCACCTGTAACACTGATTTGCTGGCTATTTGTTGGAGGGC 183	XX	XX	
Qy	915 TTTTACTACCCAGAGGAAGCGGGCTTGCCTCGGGCCACGGTCTCCAGATATCTC 974	PT	PT	
Db	184 TTTCCTATCCACCTCATGGATTCTGGTCACTCCATTAGATCCTGATTATGTC 243	PT	PT	
Qy	975 CGCCCTGGAAAGTCACTACACAAACCCAGGGTATAGAGGGCAACGACTCTCAGGC 1034	PS	PS	
Db	244 CTCCCTGAACTCCATTATGATAATCCACATTATGGAATAGATAATTCTGGA 303	XX	XX	
Qy	1035 ATCCGCTGACTAACAGCAACTGGCTGGCTTCAGGGCTTCAGCTGGGGATGGGA 1094	CC	CC	
Db	304 CTGAGGTAACTTACATGGTATAGGAATATGATGCTGGGGTATGGTGGGGATGG 363	CC	CC	
Qy	1095 CTGGTGTAACTGCGCAAGTGGCTGGCCATTACACGGGAAGCGCCCTCATCTCACTGGC 1154	CC	CC	
Db	364 CTCTGGTGTAGGCTCTTCATACATCCAGGGATGCTGGTGGAGTGGGGT 423	CC	CC	
Qy	1155 TACTGCACCGACAAAGTGCACCCAGCTCCAGGATCCAC 1205	CC	CC	
		XX	XX	Part of the printed format directly from WIPO at ftp://wipo.int/pub/published_pct_sequences .

SQ Sequence 29263 BP; 8278 A; 6037 C; 6053 G; 8895 T; 0 other;
 . Query Match 4.1%; Score 113; DB 23; Length 29263;
 . Best Local Similarity 58.0%; Pred. No. 1.3e-14;
 . Matches 200; Conservative 0; Mismatches 145; Indels 0; Gaps 0;
 .

Qy 1023 GACTCTCAGGATCCCGTGTACTACAGCCAAAGTGCCTCAAGCGGGATC 1082
 Db 25113 GACAACTCGGTTTCCATCAAGATCGAGACATGAGCTCAAGATGAGCT 25472
 .

Qy 1083 ATGGAGTGGACTGGTGTACAGCCATTCACAGGGAGACCGCTTC 1142
 Db 25473 ATGGAACTGGCTGTGGATCACCGACAATGGCCATTCGGCTGGCAAAACCGCTTC 25532
 .

Qy 1143 ATCCTCACTGGTACTCGACGGACTGCTCCCTCCGGATC 1202
 Db 25533 CGGCTGGGTATCTGCTCCACACTGACTGGAGACGGCATC 25592
 .

Qy 1203 CACATCTTGCCTCTCACTGACTGGAGAAAGGGTGGTCAACTGCTG 1262
 Db 25593 ATCATCTTGGCTCACTGATACTGATCGTGGTGGTCACTGGAC 25652
 .

Qy 1263 GTCCGGAAAGGGGGAGATGGGAGATCTGTGAAACCGGAACTACAGCCCTCACTC 1322
 Db 25653 TTTCGGCGGAAAGGGCTGGCGACGGGTGACCGGATGACTCTGAATCTC 25712
 .

Qy 1323 CAGGAGATCGATGTTGAAAGGGTGTGGTCACTCGGA 1367
 Db 25713 CAGGAGATGGCCACCCCTGACTAACGGCGTGTGGTCACTCGGA 25757
 .

RESULT 35
 AAC70713 ID AAC70713 standard; DNA; 121 BP.
 XX AC AAC70713;
 XX DT 09-FEB-2001 (first entry)
 XX DB Single nucleotide polymorphism containing sequence #181.
 XX KW Single nucleotide polymorphism; SNP; human; genetic disease;
 XX disease susceptibility; cardiovascular system; endocrine system;
 XX neurological system; forensic testing; paternity testing; ds.
 XX OS Homo sapiens.
 XX PN WO200058519-A2.
 XX PD 05-OCT-2000.
 XX PF 30-MAR-2000; 2000WO-US08440.
 XX PR 31-MAR-1999; 99US-0127248.
 XX PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
 XX PA (AFFY-) AFFYMETRIX INC.
 PI Altshuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;
 PI Lipschutz RJ, Patil N, Sklar P;
 DR 2000-611722/58.
 .

PT Nucleic acid selected from one of 106 genes comprising single
 PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
 PT are useful for phenotypic correlations, forensics, paternity testing,
 PT medicine and genetic analysis -
 XX Claim 1; Fig 5; 214pp; English.
 XX The present invention is concerned with a number of human single
 CC nucleotide polymorphisms (SNPs) which the inventors identified in human
 CC genes. These SNPs can be used in disease diagnosis and prediction of an
 CC diseases induced or exacerbated by cellular senescence.

CC individual's susceptibility to disease, in forensic and paternity testing
 CC and in genetic mapping. In particular, the SNPs of the invention can be
 CC used to diagnose susceptibility to diseases of the cardiovascular,
 CC endocrine and neurological systems, such as coronary artery disease,
 CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
 CC diseases.
 CC Note: The degenerate codon within the sequence represents the position
 CC of an SNP, for example the letter S represents a polymorphism where the
 CC nucleotide may be C or G.
 XX Sequence 121 BP; 27 A; 39 C; 31 G; 23 T; 1 other;
 .

Query Match 3.9%; Score 105 6; DB 21; Length 121;
 . Best Local Similarity 99.1%; Pred. No. 1.5e-13;
 . Matches 105; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 .

Qy 910 AGGCAATTACTACCGAGAAAGCGGCCCTGGCTTCGGGGTCAAGGGTCTCCAGAT 969
 Db 8 AGGCAATTACTACCGAGAAAGGGCTTCAGGGTCTCCAGAT 67
 .

Qy 970 ATCTGGCTTGAAATTCACTACCAACCAACTGGTATAGAAAGG 1015
 Db 68 ATCTGGCTTGAAATTCACTACCAACCAACTGGTATAGAAAGG 113
 .

RESULT 36
 AAC77118 ID AAC77118 standard; DNA; 1920 BP.
 XX AC AAC77118;
 XX DT 03-AUG-1999 (first entry)
 XX DE GS-GC6 fusion protein encoding DNA.
 XX KW Cellular senescence; modulator; Gc6 gene; senescent gene expression;
 KW PGc6; human; fusion protein; ss.
 OS Homo sapiens.
 XX PN WO925878-A2.
 XX PD 27-MAY-1999.
 XX PF 19-NOV-1998; 98WO-US24996.
 XX PR 19-NOV-1997; 97US-0974180.
 XX PA (GERON-) GERON CORP.
 PI Funk W;
 XX DR WPI; 1999-347496/29.
 XX DR P-PSDB; AAY21557.
 XX PR New human Gc6 gene, useful for identifying agents for treating
 PT diseases and/or conditions associated with cell senescence
 XX Disclosure; Page 29-30; 79pp; English.
 XX PS

CC The invention relates to methods for modulating and identifying cellular
 CC senescence. Recombinant expression vectors comprising a recombinant
 CC polynucleotide corresponding to a polynucleotide in a human Gc6 gene, are
 CC used for altering senescent gene expression. The vectors and host cells
 CC comprising the vectors are useful for identifying agents that prevent or
 CC modulate senescent gene expression. The polynucleotides are useful for
 CC producing the protein, PGc6 and nucleic acid derivatives. The proteins
 CC encoded are useful for raising antibodies specific for PGc6, which are
 CC used for isolating PGc6, and for detecting cells comprising PGc6 in
 CC complex cell mixtures. The characterization of the polynucleotides enable
 CC the identification of therapeutic agents that identify and distinguish
 CC between young and senescent cells. This enables treatment of aging
 CC diseases induced or exacerbated by cellular senescence.

XX SQ Sequence 1920 BP; 548 A; 393 C; 452 G; 527 T; 0 other;
 Query Match 3.8%; Score 102.8; DB 20; Length 1920;
 Best Local Similarity 50.2%; Pred. No. 1.2e-12;
 Matches 282; Conservative 0; Mismatches 277; Indels 3; Gaps 1;

XX QY 629 CATGGAGGTCACGCTCCAAATATCCAGATCCCCAGCAGGAGACCACTGACTGTGCTA 688
 Db 1253 CTTTGATCTGGTAATAGGACTCCATCCCCATCAAAAGATAAACATATTGTCGCCA 1312
 QY 689 CATTAAAGGAGCTTCCAAGGGCTTCTCTGGCACCAATTAGTCAGTCAAGCCCATCCT 748
 Db 1313 AATGTTAGATTCCTGTTCAAGAAAGCATCATGTAATAAAGGTGAGCCAGTAT 1372
 QY 749 CACCAAGGGCAATGAGGCCCTGTCACCAAGGATGGCTTCCAGTGGCCCGCCGA--- 805
 Db 1373 ACAGGAGGAGCCATGAGTCCTGCTCTATCATGTAGGAGACAACTT 1432
 QY 806 GATGGAAAGCCTCCCACTTCAGGGCCCTGCACTCAGCAAGATGAAACCCGACCGCT 865
 Db 1433 TAACGAAAGCCTCCCACTTCAGGGCCCTGCACTCAGCAAGATGAAACCCGACCGCT 1492
 QY 866 CAACTACTGCCGCCAGTGTGGCCAGGCCATTACTACCC 925
 Db 1493 CCTCACCTGTGAAACTGTGATTTCGCTGGCTATTGGAGGGCTTCATCC 1552
 QY 926 ACAGGGAGCCGGCTTGGCTTCCAGGTTCTCCAGTATCTCGCTGGAAAGT 985
 Db 1553 ACCTCATGTTGGATPATCCCTGGCACTCATAGATCGATTATGCTCTAGAGT 1612
 QY 986 TCACTACACAAACCCACTGTAGAAAGGAAACGACTCTCAGGCATCGCTGT 1045
 Db 1613 CCATTTGATGATATCCACCTATGAGGAGGCTTAACTGGCTTAACTGGT 1672
 QY 1046 CTACACAGGAAAGCTGGCGCPTCAAAGCGGGATCATGAGGCTGGACTGTAC 1105
 Db 1673 TTACACAAATGGATAAAATATGAGTCGGGTTATGGCTGGGTGAG 1732
 QY 1106 GCCAGTGATGCCATTCAACCCAGGGAGACCGCTTACCTCTGGTACTGAC 1165
 Db 1733 CCTCTTCATACCACTCCACGGATCCCTGAGGTGACTCTGGTACTGAC 1792
 QY 1166 CAACTGCAACCCAGCTGGACTGACTGAC 1187
 Db 1793 GGAGTGCTGGAAAGGGCTCTG 1814

XX RESULT 37
 AA:61359/c
 ID: AA161359 standard; CDNA; 2115 BP.
 XX DT 22-OCT-2001 (first entry)
 XX DE Human polynucleotide SEQ ID NO 5348.
 XX Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
 XX peripheral nervous system; neuropathy; central nervous system; CNS;
 XX Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
 XX amytrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
 XX chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
 XX leukaemia; ss.
 OS Homo sapiens.
 XX PN WO200153312-A1.
 XX PD 26-JUL-2001.
 XX PP 26-DEC-2000; 2000WO-US54263.
 XX Db 1755 CTGCGTCATTTGAAAAGGAAAGAAATTACTTGCCTATGATGATTGAC 1313
 XX PR 21-JAN-2000; 2000US-0488725.
 PR 25-APR-2000; 2000US-0552317.
 PR 09-JUL-2000; 2000US-0598042.
 PR 19-JUL-2000; 2000US-0620312.
 PR 03-AUG-2000; 2000US-0653450.
 PR 14-SEP-2000; 2000US-0662191.
 PR 19-OCT-2000; 2000US-0693036.
 PR 29-NOV-2000; 2000US-0727344.
 XX PA (HYSEQ INC.
 XX PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
 PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
 PI Zhao QA, Zhou P, Goodrich R, Brumacor RT;
 DR WPI; 2001-442253/47.
 DR P-PSDB; AAM42203.
 XX PT Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries -
 PS Claim 1; SEQ ID NO 5348; 10078pp; English.
 XX The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polypeptides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localized neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: immune system suppression, activation/inhibition activity, chemotactic/chemokinetic activity, and thrombolytic activity; cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and C.N.S. disorders.
 Note: The sequence data for this patent did not form part of the printed specification.
 XX SQ Sequence 2115 BP; 694 A; 415 C; 427 G; 579 T; 0 other;
 Query Match 3.3%; Score 90.4%; DB 22; Length 2115;
 Best Local Similarity 48.6%; Pred. No. 5; ge-10;
 Matches 284; Conservative 0; Mismatches 291; Indels 9; Gaps 1;
 QY 903 GGTGCCAAGGATTACTACCCAGGGAGCCCTTGCCCTTGCGCTTCAGGGTCC 962
 Db 2115 GGGGAGGAGGGCTTCTATCCACCTATGTGGATATCCCTGGACTCATPATGAT 2056
 QY 963 TCCAGATATCTCCGCTGGAAAGTCACTACCAACCCACTGATAGAGGACAA 1022
 Db 2055 CGCGATATGTCCTCATAGTCATCCACTATGTTAACTTGGAAAGGCTTATA 1996
 QY 1023 GACTCTCAGGATCCGGCTTGTACTACAGCCAAAGTGCCTAAAGGGGATC 1082
 Db 1995 GATAATCTGGACTGGTTAAATGGATAAATGGATAAATGGATAAATGGATAA 1936
 QY 1083 ATGGAGCTGGACTGGTGTACGGCCAGTGTGATGGCTCAACACTGAC 1142
 Db 1935 ATGGAGCTGGCTCTGGTGTACGGCTTCCATACCATCCCTGGATGCTGAGTC 1876
 QY 1143 ATCCCTACTGGCTACTGACGGACAACTGGACCCAGTGGACTGCTCCCT----- 1194
 Db 1187 CACTGAGGTACTCTACCTGGAGCTGGAGGCTCTGGAGAAAGGCCA 1816
 QY 1195 -CGGGATCCACATCTGGCTCTGGAGGAAAGCTGGCT 1253
 Db 1815 AGTGGAAATTCTGTTGCTCTCATGTCCTGGCTGAGGATCAG 1756
 QY 1254 ACAGTGGTGGCTGGACGGGGAGTGGAGATCGTGAACCCGAAATCACTACAGC 1313
 Db 1755 CTGCGTCATTTGAAAAGGAAAGAAATTACTTGCCTATGATGATTGAC 1696

Qy	13114	CCTCACACTCCAGGAGATCCGCATGTTGAGAAGGTCGTCGGCATCCGGAGATGTG 1373	Qy	946	TGGGGGTCAGGGCTCCAGATATCTCCGCTGGAAAGTCACTACCAACCCACTGG 1005
Db	16115	TTCATTTCAGGAGTTCACTATAGGAAACAATCTTACCGAGATAAC 1636	Db	2148	TGGGGTCAGGATCTGGAGTTGCTATTATGCTGGAAATACTAGATAATCCGATG 2207
Qy	13714	CTCATCACCTCTGGACCTACACCGAGACGGAGCTGGCATGTCGGCTC 1433	Qy	1006	TGATAGAGGAGCAAGCAGCTCTAGGCATCGCTGTACTACAGCCAGCTGGGC 1065
Db	16135	CTAATTACTGAGTGTGCTGTTACACAGAARGTAGAGCTGAGATGACTGGGAGACTA 1576	Db	2208	GAAGGAAATCTGGATCACA--GGTTTTCGATACTACACCCAAATCTGGAA 2264
Qy	14314	GGGATCCGGAGGAGATCTGTGCAACTACGTGCACTACTACCC 1477	Qy	1066	GCTTCAACGGGGATCATGGAGCTGGACTGTGATGGCCATTCAC 1125
Db	15715	AGCCACAGGAGTGAATGTGCTCTCATACCTCTTACCC 1532	Db	2265	CCTACGATTCCGGAACTCTAAAGTGTTTCATTTGAAAGCAACTCTCGC 2324
Qy	RESULT 38		Qy	1126	CACGGAGACGGCTTCATCCTCATGGCTACTGACGGACAAGTCACCCAGCTGGCAC 1185
Db	ABL09098 standard; cDNA; 3483 BP.		Db	2325	CTGGTCAAAGAAGATGATGATGATGTCGGCAATTGGGGCTCTTCAAGGTGATGT 2384
XX	ABL09098;		Qy	1186	TGCCCTCCCGGGATCCACCTCTGGCTCTCACTGGAGAA 1245
AC	XX		Db	2385	TCCCAAGAGGTGTTAAATAATPATCCGAAACCTGTCACATCAAGCTGGC 2444
DT	26-MAR-2002 (first entry)		Qy	1246	AGGTGTCACAGTCGGATCTGGAGGAACTGGAGAA 1305
XX	Drosophila melanogaster expressed polynucleotide SEQ ID NO 21776.		Db	2445	CAATTAGTCCTCGACATGTTGATCTGGTAACTGGATCTGGAA 2504
XX	Drosophila; developmental biology; cell signalling; insecticide; pharmaceutical; gene; 86.		Qy	1306	ACTACAGCCCTCACTTCAGGAGATCCGCATGTTGAGAAGCTGGTCCATCCGG 1365
KW	KW		Db	2505	ACTACGTTCCATGAGGATCCGCATGTTGAGAAGCTGGTCCATTCGG 2564
XX	Drosophila melanogaster.		Qy	1366	GAGATSTGCTCATCACCTCTGGCATCACACGGAAAGCAGGGAGCTGGCCACAGTGG 1425
PN	WO200171042-A2.		Db	2565	GGGATTAACCTAAATTACAGACTGTTCTATGAGACAAAGTACAGAAAACGCCCACATTG 2624
XX	27-SEP-2001.		Qy	1426	GGGCCTGGATTCCTGGAGATGTGTCAAACTAGTCGACTACTACCCACAGGC 1485
PD	XX		Db	2625	GGGGTATTCCACGAGGAAATGTGTCTCACCTTAACTTACCAAAAGATTG 2684
XX	PP 23-MAR-2001; 2001WO-US09221.		Qy	1486	AGCTG 1490
PP	PP 23-MAR-2000; 2000US-191637P.		Db	2685	AGATG 2689
PR	PR 11-JUL-2000; 2000US-0614150.				
XX	PA (PEKE) PE CORP NY.				
PA	XX				
PI	Venter JC, Adams M, Li PWD, Myers EW;				
XX	DR WPI; 2001-65686/75.				
XX	DR P-PSDB; ABB64995.				
PT	XX				
PT	PT genes from Drosophila and for elucidating cell signalling and cell-cell interactions -				
PT	PT interactions -				
PS	PS 1; SEQ ID NO 21776; 21pp + Sequence Listing; English.				
XX	The invention relates to an isolated nucleic acid detection reagent for detecting 1000 or more genes from Drosophila and for elucidating cell signalling and cell-cell interactions -				
XX	The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention is useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL01840-ABL16175) and the encoded proteins (ABL01840-ABL16175) and the encoded proteins (ABB7737-ABB72072).				
CC	The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at http://wipo.int/pub/published_pct_sequences .				
CC	XX				
CC	Sequence 3483 BP; 1036 A; 726 C; 747 G; 974 T; 0 other;				
SQ	Query Match 2.4%; Score 65.8%; DB 23; Length 3483;				
Best Local Similarity 45.5%; Pred. No. 0.00015;	Mismatches 0; Mismatches 327; Indels 3; Gaps 1;				
Matches 275; Conservative	XX				
Qy	886 TTGGCCTCTGGCTGGTCTGGATCTGATGACAGTTCTACCTCCACGAGGATCCAA 2147				
Db	2088 TTGCAAGTTGCTCTGGATCTGATGACAGTTCTACCTCCACGAGGATCCAA 2147				
RESULT 39	XX				
AAC70728	XX				
ID AAC70728 standard; DNA; 74 BP.	XX				
XX	AAC70728;				
XX	09-FBB-2001 (first entry)				
XX	Single nucleotide polymorphism containing sequence #106.				
XX	Single nucleotide polymorphism				
XX	Single nucleotide polymorphism; SNP; human; generic disease; disease susceptibility; cardiovascular system; endocrine system; neurological system; forensic testing; paternity testing; ds.				
XX	Homo sapiens.				
OS	XX				
XX	WO2000058519-A2.				
XX	XX				
XX	05-OCT-2000.				
XX	30-MAR-2000; 2000WO-US08440.				
XX	XX				
PR 31-MAR-1999; 990US-0127248.	XX				
XX	(WHED) WHITEBED INST BIOMEDICAL RES.				
PA (AFY-) AFFYMATRIX INC.	XX				
PA Altshuler D, Cargill M, Daley GO, Ireland JS, Lander ES, Lipshutz RJ, Patil N, Sklar P;	XX				
PI WPI; 2000-611722/58.	DR				

Nucleic acid selected from one of 106 genes comprising single nucleotide polymorphisms, allele-specific oligonucleotides to the genes for phenotypic correlations, forensics, paternity testing, medicine and genetic analysis -

Claim 1; Fig 5; 214P; English.

The present invention is concerned with a number of human single nucleotide polymorphisms (SNPs) which the inventors identified in human individuals used in disease diagnosis and prediction of an individual's susceptibility to disease, in forensic and paternity testing and in genetic mapping. In particular, the SNPs of the invention can be used to diagnose susceptibility to diseases of the cardiovascular, endocrine and neurologic systems, such as coronary artery disease, schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's diseases.

Note: The degenerate codon within the sequence represents the position of an SNP, for example the letter S represents a Polymorphism where the nucleotide may be C or G.

Sequence 74 BP; 18 A; 21 C; 20 G; 14 T; 1 other;
 Query Match 2.3%; Score 63.8; DB 21; Length 74;
 Best Local Similarity 94.2%; Pred. No. 0.00016;
 Matches 65; Conservative 1; Mismatches 3;
 Indels 0; Gaps 0;
 Sq 1357 TCCATCCGGAGATGTTGTCATCACCTCCGACCTAACACCGGAAACGGAGCTGG 1416
 2 TTCCCTCAGGAGATGTCATCACCTCCGACCTAACACCGGAAACGGAGCTGG 61
 Qy 1417 CCACAGTGG 1425
 Db 62 CCACAGTGG 70

RESULT 40
 ID ARN42151 strand -
 ARN42151

Search completed: November 12, 2002 22:11:11

Human spliced transcript detection oligonucleotide SEQ ID NO:15099.
Human; mouse; rat; splice transcript; detection; RNA transcript;
splice variant; transcriptome; oligonucleotide library; seq
standard; DNA; 60 BP.

Homo sapiens : 11, 22.

110

WO2000210449-A1

07-2000

VOLUME 14, NUMBER 1, FEBRUARY 2002

20-JUL-2001: 2

28-JUL-2000; 2

J2-MAY-2001; 2

COMB-1 CONDIZIONI

כטמוניה

Shoshan A., W.

NPPI; 2002-2573

卷之二

New Organelles

卷之三

Environmental

example 1; SEQ

The present invention describes oligonucleotide libraries for detecting

THIS PAGE BLANK (USPTO)